SERVICE MANUAL
PARTS LIST

4120QDC

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WHAT TO DO WHEN

CONDITION	CAUSE	HOW TO FIX	REFERENCE
1. SKIPPING STITCHES	1. NEEDLE IS NOT INSERTED PROPERLY.	INSERT THE NEEDLE PROPERLY.	
	2. NEEDLE IS BENT OR WORN.	CHANGE THE NEEDLE.	
	3. INCORRECTLY THREADED.	RETHREAD.	
	4. NEEDLE OR THREAD ARE INAPPROPRIATE FOR THE FABRIC BEING SEWN.	USE THE RECOMMENDED SEWING NEEDLE AND THREAD.	
	5. SEWING ON STRETCH FABRIC.	USE A HA X #11 BLUE TIP NEEDLE.	
	6. INAPPROPRIATE NEEDLE BAR HEIGHT.	SEE MECHANICAL ADJUSTMENT “NEEDLE BAR HEIGHT”.	P. 12
	7. INAPPROPRIATE NEEDLE TO HOOK TIMING.	SEE MECHANICAL ADJUSTMENT “ADJUSTMENT OF HOOK TIMING”.	P. 11
	8. INAPPROPRIATE NEEDLE TO HOOK CLEARANCE.	SEE MECHANICAL ADJUSTMENT “CLEARANCE BETWEEN NEEDLE AND TIP OF THE ROTARY HOOK”.	P. 13
2. FABRIC NOT MOVING	1. INCORRECT FEED DOG HEIGHT.	ADJUST THE PRESSER BAR LEVEL TO MAKE THE PRESSURE STRONGER. SEE MECHANICAL ADJUSTMENT “FEED DOG HEIGHT”.	P. 14
	2. FEED DOG IS IN DOWN POSITION.	RAISE THE FEED DOG.	
	3. THREAD ON BOTTOM SIDE OF FABRIC IS JAMMED UP.	MAKE SURE TO BRING BOTH NEEDLE AND BOBBIN THREADS UNDER THE FOOT WHEN START SEWING.	
	4. FEED DOG TEETH ARE WORN.	CHANGE THE FEED DOG.	

CONDITION	CAUSE	HOW TO FIX	REFERENCE
3. BREAKING UPPER THREAD.	1. INITIAL SEWING SPEED IS TOO FAST.	START WITH MEDIUM SPEED.	
	2. THREAD PATH IS INCORRECT.	USE THE PROPER THREAD PATH.	
	3. NEEDLE IS BENT OR DULL.	REPLACE WITH A NEW NEEDLE.	
	4. TOP TENSION IS TOO STRONG.	ADJUST TOP TENSION CORRECTLY.	
	5. NEEDLE SIZE IS INAPPROPRIATE FOR FABRIC.	USE APPROPRIATE NEEDLE FOR FABRIC AND THREAD IN USE.	
	6. NEEDLE EYE IS WORN.	CHANGE THE NEEDLE.	
	7. NEEDLE HOLE IN NEEDLE PLATE IS WORN OR BURRED.	REPAIR THE HOLE OR REPLACE THE NEEDLE PLATE.	
4. BREAKING BOBBIN THREAD.	1. BOBBIN HOLDER IS INCORRECTLY THREADED.	SET THE BOBBIN THREAD CORRECTLY.	
	2. TOO MUCH THREAD IS WOUND ON THE BOBBIN.	ADJUST THE POSITION OF BOBBIN WINDER STOPPER.	
	3. LINT IS STUCK INSIDE THE BOBBIN HOLDER.	CLEAN THE BOBBIN HOLDER.	
	4. THREAD QUALITY IS TOO LOW.	CHANGE TO A HIGH QUALITY SEWING THREAD.	
	5. THREAD IS JAMMING AROUND THE BOBBIN HOLDER.	CLEAR OUT THE JAMMING THREAD.	
5. NEEDLE BREAKES	1. NEEDLE IS HITTING THE NEEDLE PLATE.	SEE MECHANICAL ADJUSTMENT “NEEDLE DROP POSITION”.	P. 10
	2. NEEDLE IS BENT OR WORN.	CHANGE THE NEEDLE.	
	3. NEEDLE IS HITTING THE HOOK.	SEE MECHANICAL ADJUSTMENT “CLEARANCE BETWEEN NEEDLE AND TIP OF THE ROTARY HOOK”.	P. 13
	4. FABRIC IS BEING PULLED TOO STRONGLY WHILE SEWING.	GUIDE THE FABRIC GENTLY WHILE SEWING.	

CONDITION	CAUSE	HOW TO FIX	REFERENCE
6. NOISY OPERATION	1. BACKLASH BETWEEN HOOK GEAR AND LOWER SHAFT GEAR IS TOO GREAT.	ELIMINATE THE BACKLASH.	
	2. LOWER SHAFT GEAR IS LOOSE.	ELIMINATE THE LOOSENESS.	
	3. INAPPROPRIATE BELT TENSION.	SEE PART REMOVAL AND REPLACEMENT “DRIVING MOTOR (DC MOTOR)”.	P. 24
	4. NOT ENOUGH OIL.	OIL ALL MOVING PARTS.	
	5. UPPER SHAFT GEAR IS LOOSE.	ELIMINATE THE LOOSENESS.	
7. DEFORMATION PATTERN	1. INAPPROPRIATE FEED BALANCE.	ADJUST THE FEED BALANCING SCREW.	
	2. TOP TENSION IS TOO STRONG.	SEE MECHANICAL ADJUSTMENT “TOP TENSION”.	P. 15

CHANGING EXTERNAL PARTS

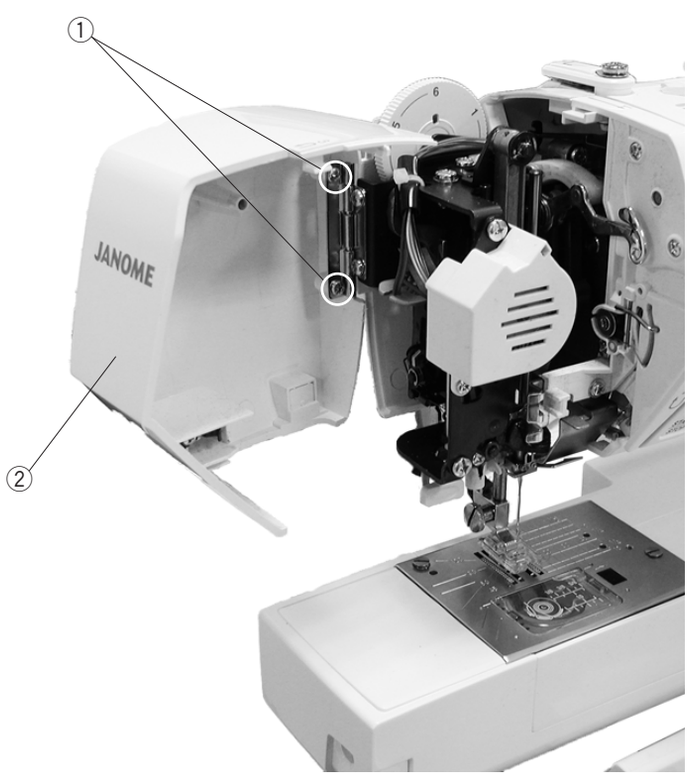
FACE COVER

TO REMOVE:

1. LOOSEN THE SETSCREW ① AND LIFT THE FACE COVER TO DISENGAGE THE RIB ON THE INSIDE. REMOVE THE FACE COVER ②.

TO ATTACH:

2. FOLLOW THE ABOVE PROCEDURES IN REVERSE.



CHANGING EXTERNAL PARTS

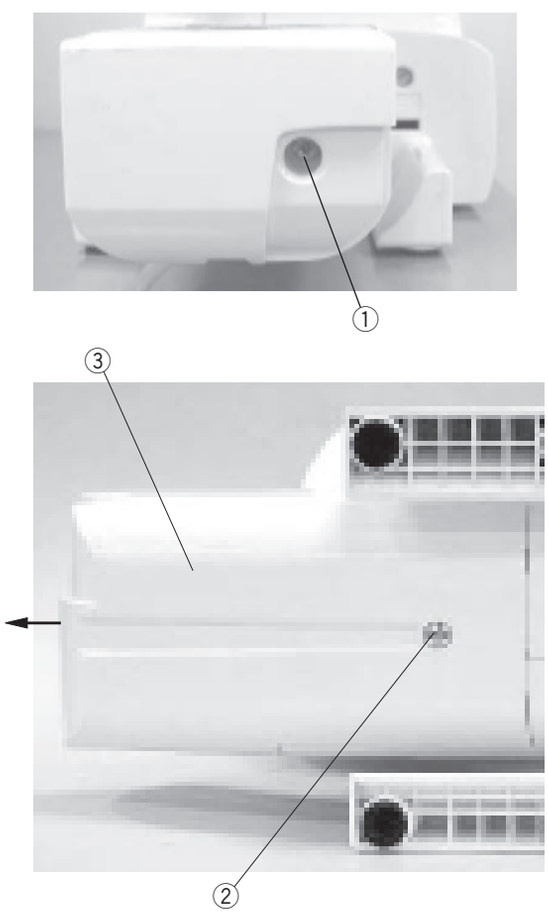
FREE-ARM COVER

TO REMOVE:

1. LOOSEN THE SETSCREW ① AND ②. MOVE THE FREE-ARM COVER ③ TO THE LEFT. REMOVE THE FREE-ARM COVER.

TO ATTACH:

FOLLOW THE ABOVE PROCEDURES IN REVERSE.



CHANGING EXTERNAL PARTS

FRONT COVER (1)

TO REMOVE:

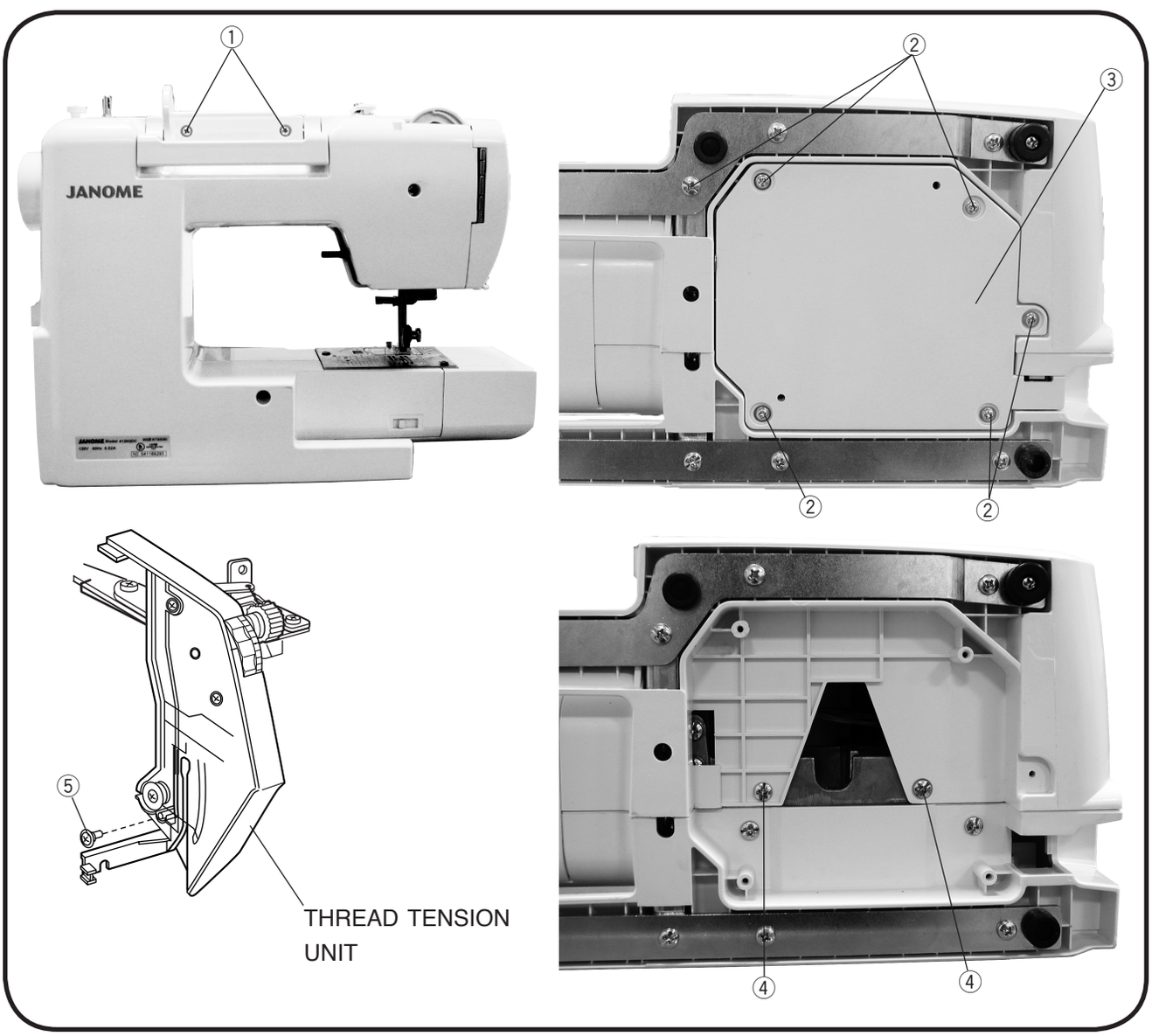
1. REMOVE THE FACE COVER AND FREE-ARM COVER (SEE PAGE 8 AND 9).
2. REMOVE THE SETSCREWS (A) ① (2 PCS.).
3. REMOVE THE SETSCREWS (B) ② (6 PCS.), BACK COVER ③.
4. REMOVE THE SETSCREWS (C) ④ (2 PCS.).
5. LOOSEN THE SETSCREW ⑤.
6. DISCONNECT ALL THE CONNECTORS FROM THE CIRCUIT BOARD A.

NOTE:

DO NOT DISCONNECT THE CONNECTORS BY PULLING ON CORD.
TO DISCONNECT, GRASP THE CONNECTOR, NOT THE CORD.

TO ATTACH:

7. FOLLOW THE ABOVE PROCEDURES IN REVERSE.



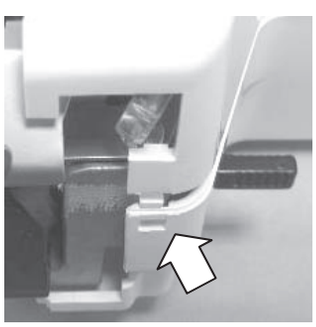
CHANGING EXTERNAL PARTS

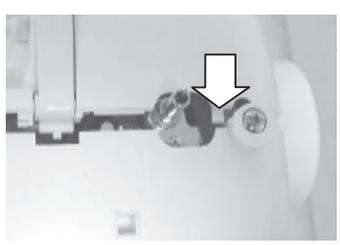
FRONT COVER (2)

1. DISENGAGE THE FRONT COVER AND REAR COVER HOOKS.
2. REMOVE THE FRONT COVER.

TO ATTACH:

FOLLOW THE ABOVE PROCEDURES IN REVERSE.





CHANGING EXTERNAL PARTS

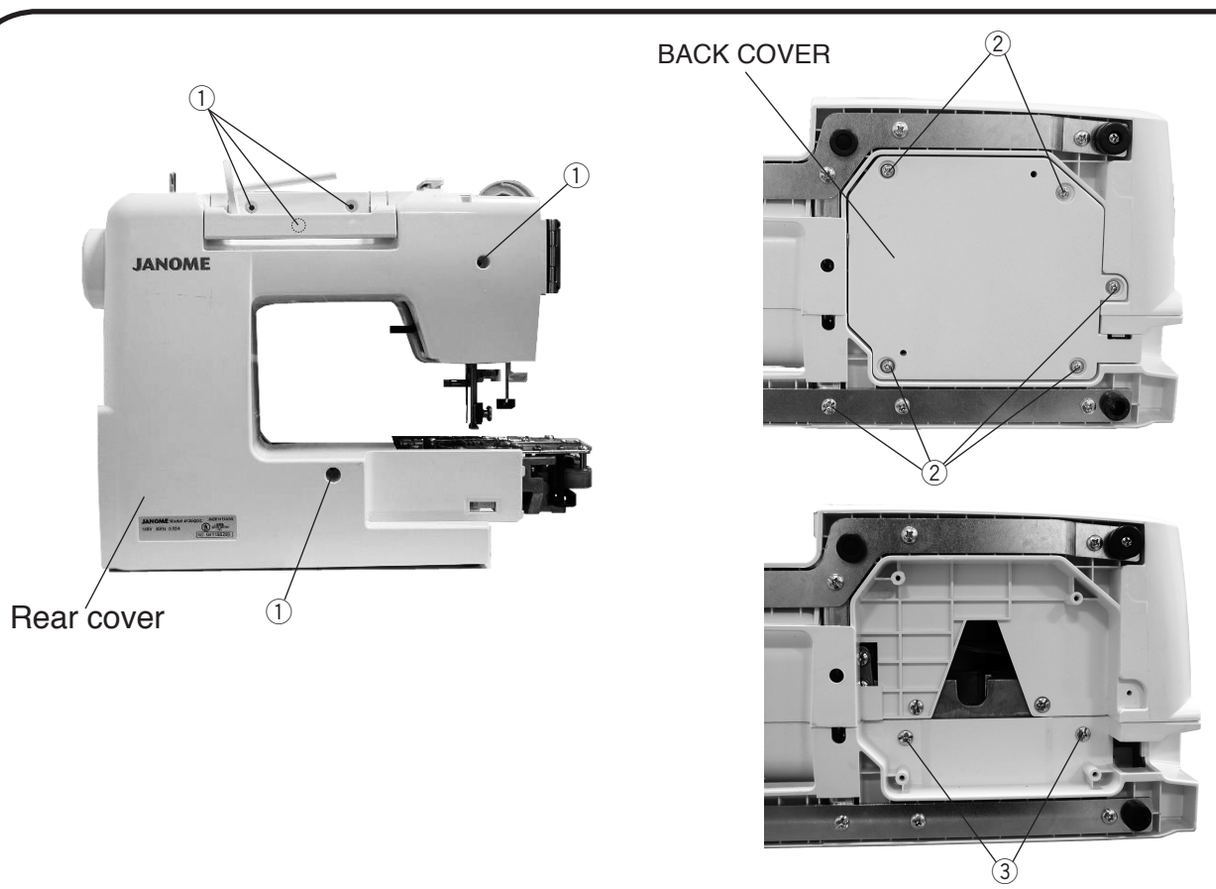
REAR COVER

TO REMOVE:

1. REMOVE THE FACE COVER AND FREE-ARM COVER (SEE PAGE 4 AND 5).
2. REMOVE THE SETSCREWS (A) ① (5 PCS.).
3. REMOVE THE SETSCREWS (B) ② (6 PCS.) AND BACK COVER.
4. REMOVE THE SETSCREWS (C) ③ (2 PCS.). REMOVE THE REAR COVER.

TO ATTACH:

5. FOLLOW THE ABOVE PROCEDURES IN REVERSE.



MECHANICAL ADJUSTMENT

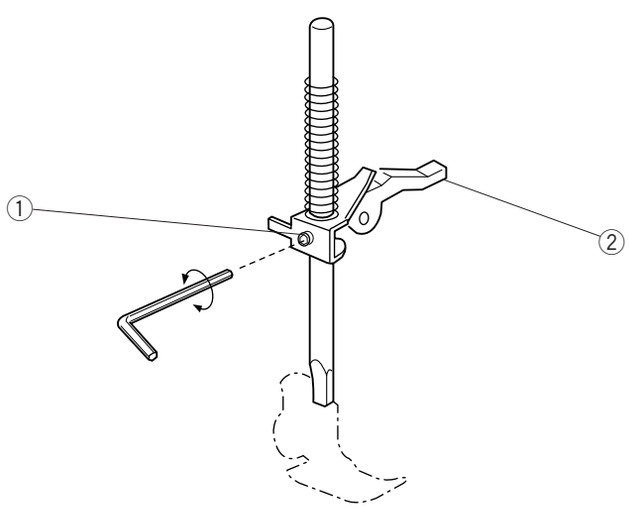
PRESSER BAR HEIGHT

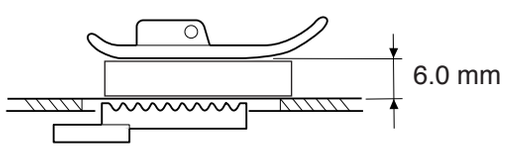
THE DISTANCE BETWEEN THE BOTTOM OF THE PRESSER FOOT IN UP POSITION AND THE NEEDLE PLATE SHOULD BE 6.0 MM.

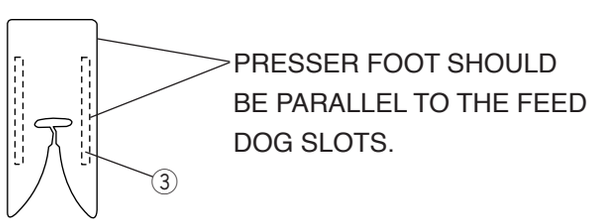
1. REMOVE THE FACE PLATE AND NEEDLE.
2. LOWER THE FEED DOG BELOW THE NEEDLE PLATE. PLACE A BLOCK 6 MM THICK UNDER THE PRESSER FOOT AND LOWER THE PRESSER FOOT LIFTER ②.
3. LOOSEN THE SETSCREW ①. RAISE THE PRESSER FOOT LIFTER AND TIGHTEN THE SETSCREW ① FIRMLY.
   ATTACH THE NEEDLE AND FACE PLATE.

NOTE:

MAKE SURE THAT THE PRESSER FOOT SHOULD BE PARALLEL TO THE FEED DOG SLOTS ③ IN THE NEEDLE PLATE.







MECHANICAL ADJUSTMENT

NEEDLE DROP POSITION

SET THE STITCH PATTERN TO "⫰". THE STANDARD NEEDLE DROP POSITION SHOULD BE AT CENTER OF THE NEEDLE PLATE HOLE ①. SELECT ZIGZAG STITCH "⩙", AND SET THE STITCH WIDTH AT "5.0". THE CLEARANCE BETWEEN THE NEEDLE AND THE EDGE OF THE NEEDLE HOLE SHOULD BE AT LEAST 0.2 MM ON EITHER SIDE. IF NOT, ADJUST AS FOLLOWS:

1. TURN THE POWER SWITCH OFF. REMOVE THE FACE COVER. (SEE PAGE 4.)
2. LOOSEN THE HEXAGONAL SOCKET SCREW 3 X 4 ②. ADJUST THE NEEDLE DROP POSITION BY TURNING THE ECCENTRIC PIN.
   THE DIRECTION OF ECCENTRIC PIN SHOULD BE AS SHOWN IN FIG. 1.
3. ATTACH THE FACE COVER.

NOTE:
CHECK THE HOOK TIMING AFTER THIS ADJUSTMENT.

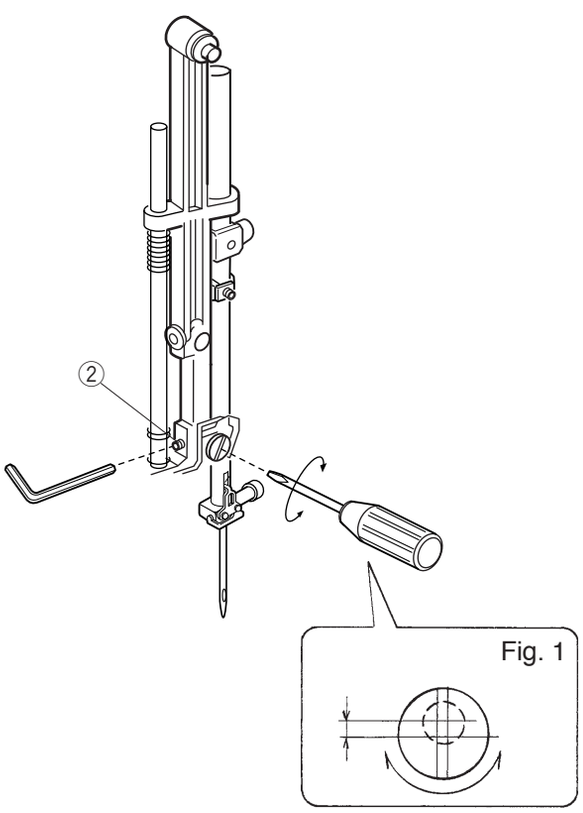
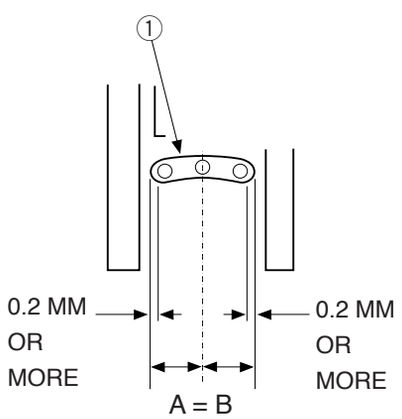


Fig. 1

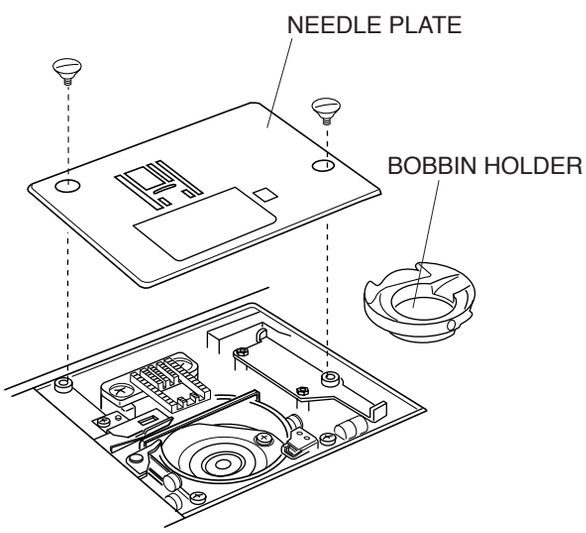


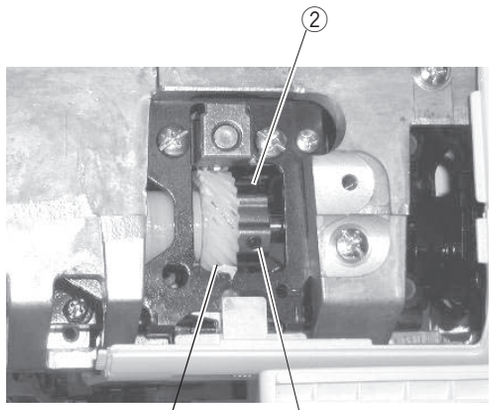
MECHANICAL ADJUSTMENT

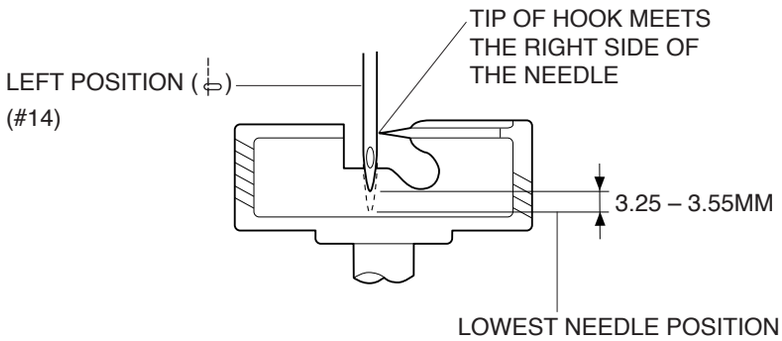
ADJUSTMENT OF HOOK TIMING

THE AMOUNT OF ASCENDING TRAVEL OF THE NEEDLE BAR FROM ITS LOWEST POSITION TO THE POSITION ( ) WHERE THE TIP OF THE ROTARY HOOK EXACTLY MEETS THE RIGHT SIDE OF THE NEEDLE SHOULD BE 3.25 TO 3.55 MM.

1. REMOVE THE NEEDLE PLATE AND BOBBIN HOLDER.
2. TURN THE POWER SWITCH ON.
3. SELECT THE PATTERN (LEFT POSITION). SET THE ZIGZAG WIDTH AT 0.
4. REMOVE THE FREE-ARM COVER.
   TURN THE HANDWHEEL TOWARD YOU TO LOWER THE NEEDLE AT ITS LOWEST POSITION.
5. LOOSEN THE HEXAGONAL SOCKET SCREW ② (2 PCS.).
6. MOVE THE NEEDLE BAR 3.4 MM FROM THE LOWEST POSITION.
7. TURN THE LOWER SHAFT GEAR UNTIL THE TIP OF HOOK MEETS THE RIGHT SIDE OF THE NEEDLE WHILE HOLDING THE HANDWHEEL.
8. TIGHTEN THE HEXAGONAL SOCKET SCREW ② (2 PCS.).
9. ATTACH THE FREE-ARM COVER, BOBBIN HOLDER AND NEEDLE PLATE.





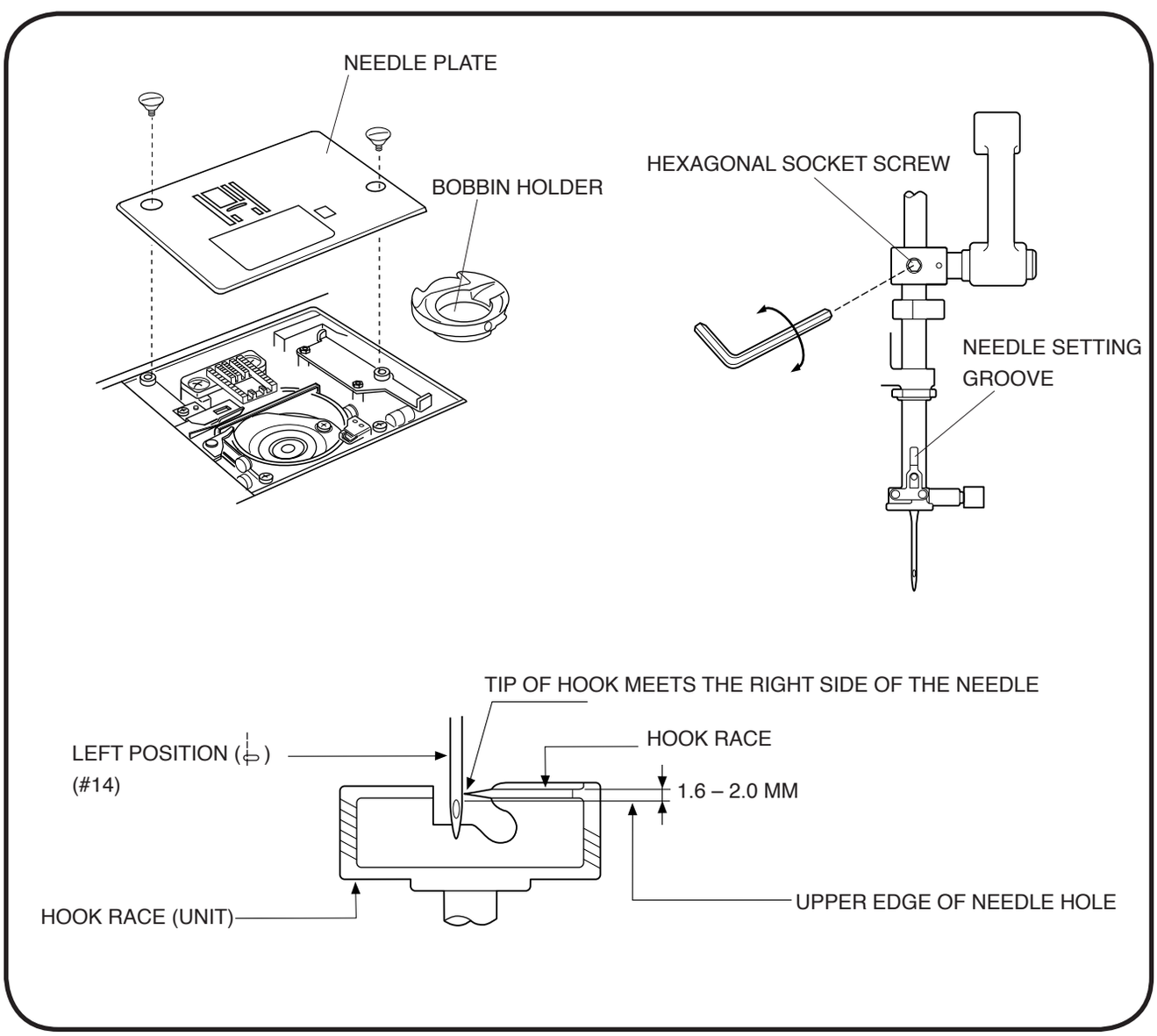


MECHANICAL ADJUSTMENT

ADJUSTMENT OF NEEDLE BAR HEIGHT

BEFORE PROCEEDING WITH THIS ADJUSTMENT, CHECK THE HOOK TIMING (REFER TO PAGE 11). THE DISTANCE BETWEEN THE UPPER EDGE OF THE NEEDLE EYE AND THE TIP OF THE HOOK SHOULD BE IN THE RANGE OF 1.6 TO 2.0 MM WHEN THE TIP OF THE HOOK TIMING MEETS RIGHT SIDE OF THE NEEDLE IN THE LEFT NEEDLE POSITION ( ) AS THE NEEDLE ASCENDS FROM ITS LOWEST POSITION.

1. REMOVE THE NEEDLE PLATE, BOBBIN HOLDER AND FACE PLATE.
2. TURN THE POWER SWITCH ON.
3. SELECT THE PATTERN (LEFT POSITION). SET THE ZIGZAG WIDTH AT 0.
4. TURN THE HANDWHEEL TOWARD YOU UNTIL THE TIP OF HOOK MEETS THE RIGHT SIDE OF THE NEEDLE.
5. LOOSEN THE HEXAGONAL SOCKET SCREW ①.
6. MOVE THE NEEDLE BAR TO ADJUST THE NEEDLE BAR HEIGHT, AND TIGHTEN THE HEXAGONAL SOCKET SCREW ①.
   BE CAREFUL NOT TO TURN THE NEEDLE BAR.
7. ATTACH THE BOBBIN HOLDER, NEEDLE PLATE AND FACE COVER.



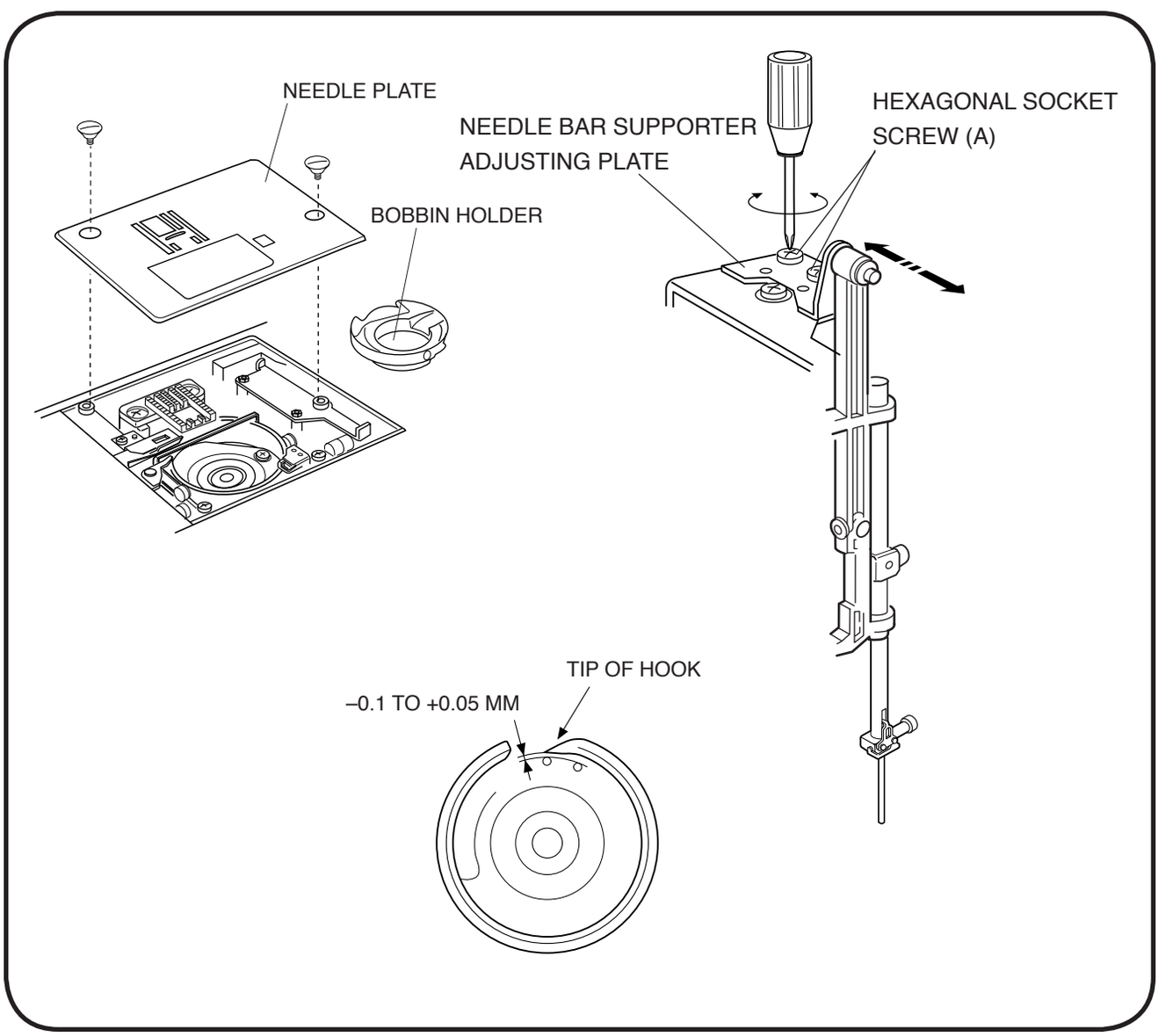
MECHANICAL ADJUSTMENT

CLEARANCE BETWEEN NEEDLE AND TIP OF THE ROTARY HOOK

* THE CLEARANCE BETWEEN THE NEEDLE AND THE POINT OF HOOK SHOULD BE –0.1 TO +0.05 MM.

ADJUSTMENT PROCEDURE:

1. REMOVE THE NEEDLE PLATE AND BOBBIN HOLDER. ATTACH THE MASTER NEEDLE. TURN THE POWER SWITCH ON AND SET THE ZIGZAG WIDTH AT MAXIMUM.
2. REMOVE THE FACE COVER.
3. LOOSEN THE SETSCREW A (2 PCS.).
4. TURN THE HANDWHEEL TOWARD YOU. ADJUST THE CLEARANCE BETWEEN THE NEEDLE AND THE TIP OF THE ROTARY HOOK, BY MOVING THE HOOK BASE PLATE UP OR DOWN, TO WITHIN –0.1 TO +0.05 MM AT THE LEFT AND RIGHT NEEDLE POSITION.
5. TIGHTEN THE SETSCREW A (2 PCS.).
6. ATTACH THE FACE COVER. REMOVE THE MASTER NEEDLE. ATTACH THE BOBBIN HOLDER AND NEEDLE PATE.
7. CHECK THE CLEARANCE BETWEEN THE NEEDLE AND THE EDGE OF THE NEEDLE HOLE IN THE NEEDLE PLATE (SEE PAGE 10).

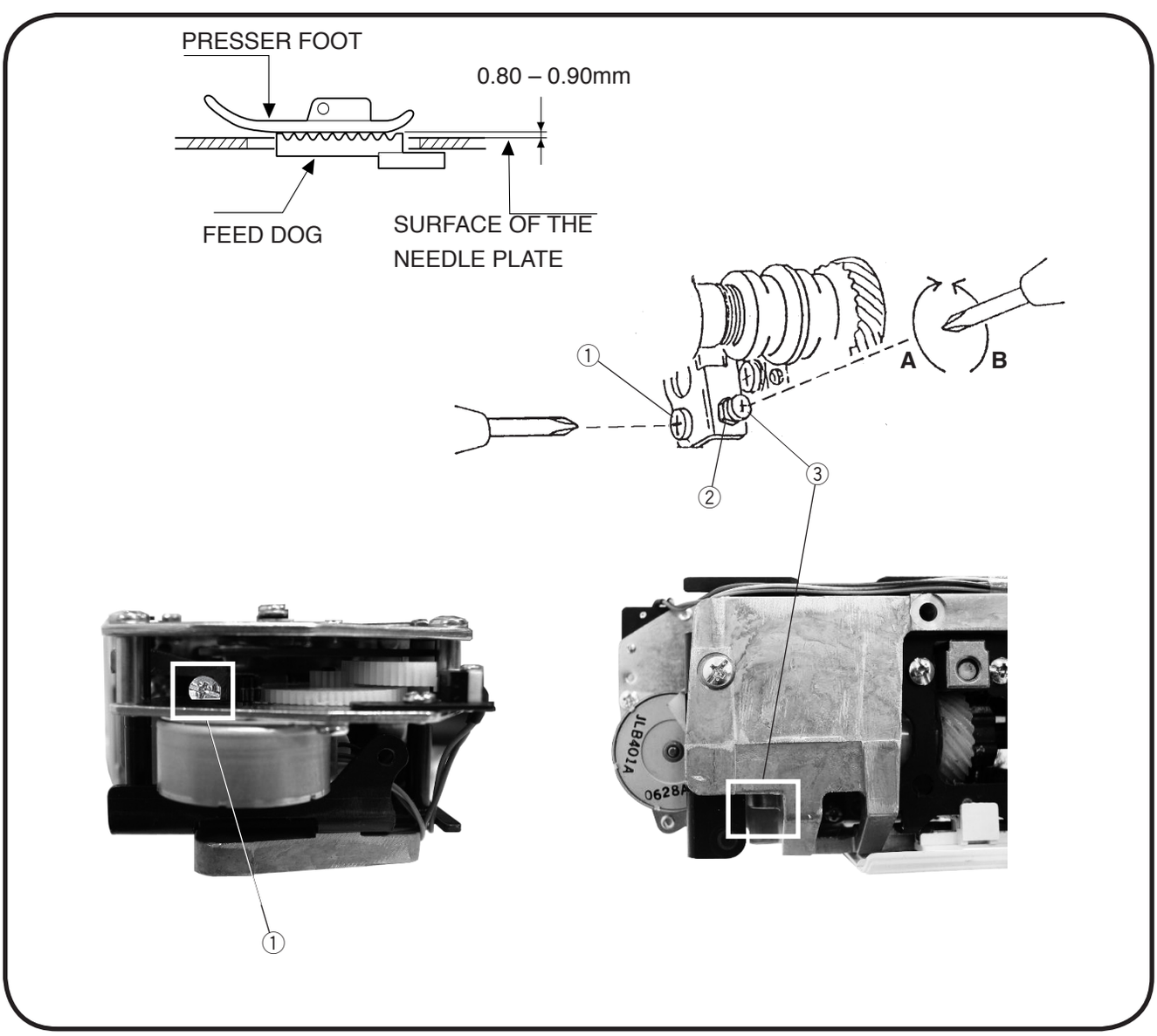


MECHANICAL ADJUSTMENT

FEED DOG HEIGHT

THE HIGHEST POSITION OF THE FEED DOG SHOULD BE BETWEEN 0.80 AND 0.90 MM FROM THE SURFACE OF THE NEEDLE PLATE.

1. LOWER THE PRESSER FOOT AND TURN THE POWER SWITCH ON.
2. TURN THE HANDWHEEL TOWARD YOU TO SET THE FEED DOG AT THE HIGHEST POSITION.
3. REMOVE THE FREE-ARM COVER.
4. LOOSEN THE SETSCREW ① AND NUT ②.
5. ADJUST THE FEED DOG HEIGHT BY TURNING THE ADJUSTING SCREW ③. THE HIGHEST POSITION OF THE FEED DOG SHOULD BE BETWEEN 0.80 AND 0.90 FROM THE SURFACE OF THE NEEDLE PLATE.
6. TIGHTEN THE NUT ② AND SETSCREW ①.
7. ATTACH THE FREE-ARM COVER.



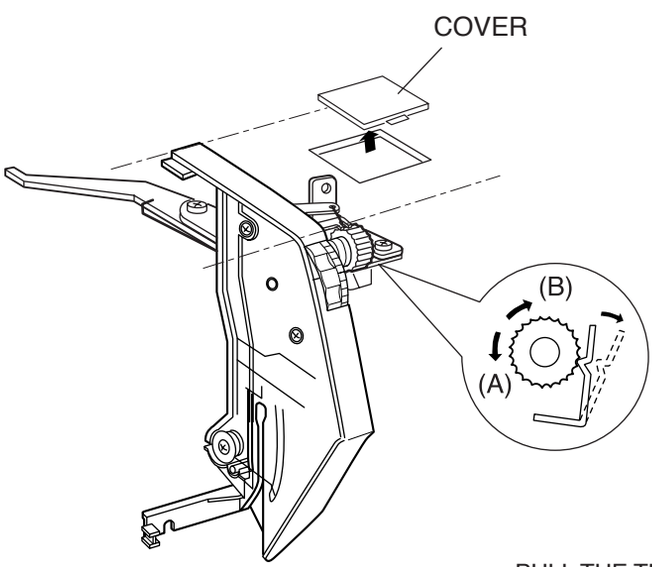
MECHANICAL ADJUSTMENT

TOP TENSION

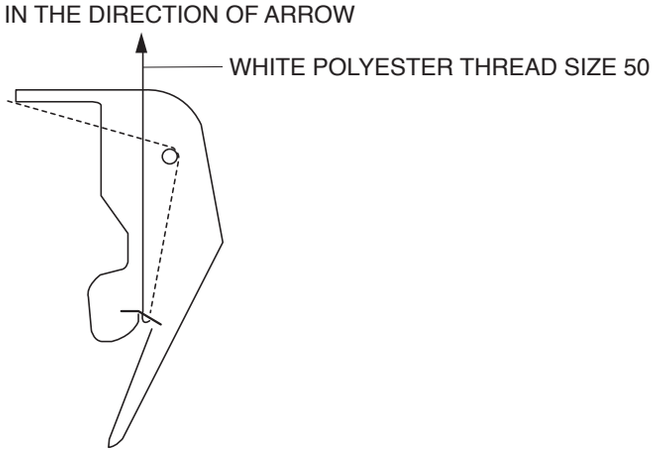
THE TOP TENSION SHOULD BE BETWEEN 65 AND 80G WHEN PULLING THE THREAD UP IN THE DIRECTION OF ARROW.

* USE POLYESTER SEWING THREAD #50 (WHITE).
* IF IT IS NOT WITHIN THE ABOVE LIMIT, ADJUST AS FOLLOWS.

1. SET THE TENSION DIAL “4”.
2. REMOVE THE COVER.
3. LOWER THE PRESSER FOOT.
   - IF THE TOP TENSION IS TOO LOOSE, TURN THE LEAD SCREW IN THE DIRECTION (A).
   - IF THE TOP TENSION IS TOO TIGHT, TURN THE LEAD SCREW IN THE DIRECTION (B).
4. CHECK THE TOP TENSION AND ATTACH THE COVER.



PULL THE THREAD AT THE SPEED OF 110 MM/SEC
IN THE DIRECTION OF ARROW

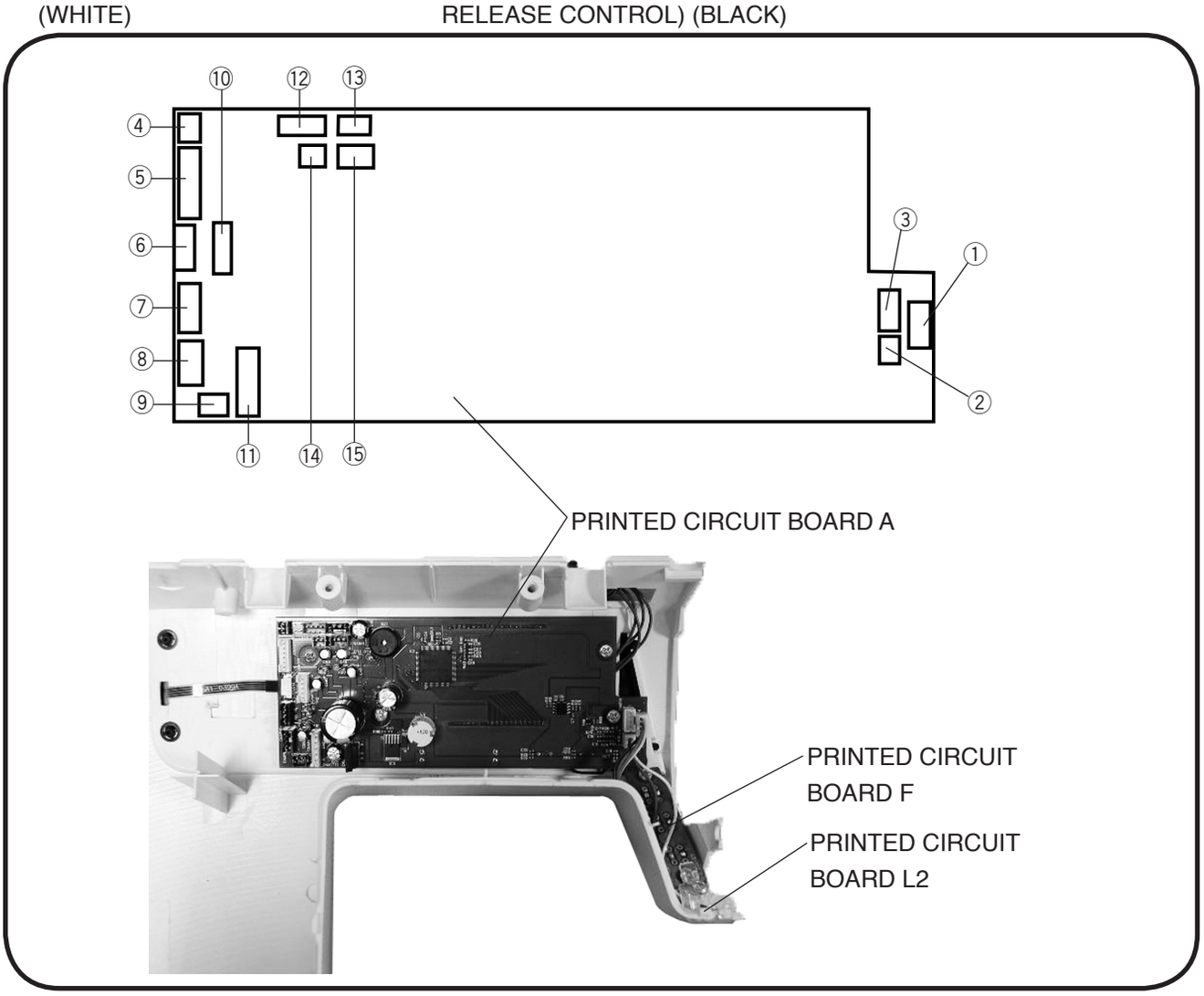


REPLACING THE ELECTRONIC COMPONENTS

CIRCUIT BOARD-A CONNECTION

NOTE:
DO NOT DISCONNECT THE CONNECTORS BY PULLING ON CORD.
TO DISCONNECT, GRASP THE CONNECTOR, NOT THE CORD.

① PRINTED CIRCUIT BOARD F (WHITE)
② PRINTED CIRCUIT BOARD L2 (WHITE)
③ PROGRAM (BLACK)
④ BOBBIN WINDING SWITCH (BLUE)
⑤ THREAD CUTTER MOTOR (WHITE)
⑥ TOUCH PANEL (WHITE)
⑦ FEED MOTOR (WHITE)
⑧ PRINTED CIRCUIT BOARD P (BLACK)
⑨ SWITCHING REGULATOR (BLACK)
⑩ POWER SWITCH (WHITE)
⑪ DC MOTOR (WHITE)
⑫ STITCH WIDTH MOTOR (GREEN)
⑬ SOLENOID (THREAD TENSION RELEASE CONTROL) (BLACK)
⑭ MICRO SWITCH (PRESSER FOOT LIFETER SENSOR) (GREEN)
⑮ PRINTED CIRCUIT BOARD E1 (BH SENSOR) (RED)



SELF-DIAGNOSTIC TEST

PREPARATION:

1. TURN THE POWER SWITCH OFF.
2. MOVE THE BOBBIN WINDER SPINDLE TO THE LEFT.
3. RAISE THE FEED DOG.
4. SET THE SPEED CONTROL LEVER TO THE LEFT.
5. REMOVE THE PRESSER FOOT AND RAISE THE PRESSER FOOT LIFTER.
6. TURN THE HAND WHEEL TOWARD YOU TO RAISE THE NEEDLE TO ITS HIGHEST POSITION.

NOTES:

- BE CAREFUL: THE SEWING MACHINE MAY START RUNNING IN ITS OWN WHILE IN TEST MODE.
- TURN OFF THE POWER SWITCH BEFORE REPLACING ANY PARTS.
- REPEAT THE DIAGNOSTIC TEST UNTIL THE PROBLEM HAS BEEN RESOLVED.
- YOU CAN SKIP STEPS IN THE DIAGNOSTIC PROCEDURE AND GO DIRECTLY TO THE TEST YOU WANT TO PERFORM.
  (ENTER SELF-DIAGNOSTIC MODE, THEN SELECT THE STEP NUMBER OF THE DIAGNOSTIC TEST YOU REQUIRE BY PRESSING THE REVERSE STITCH BUTTON)

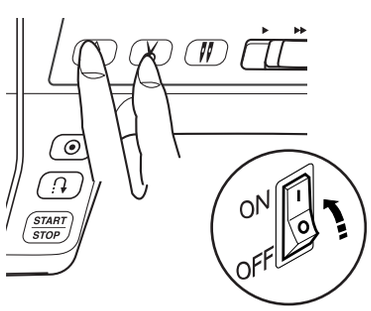
TO BEGIN:

TURN ON THE SWITCH. IF ANY OF THE FOLLOWING PROBLEMS OCCUR, TAKE THE RECOMMENDED ACTIONS IN THE ORDER THEY ARE SHOWN.

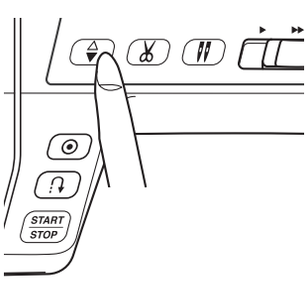
1. THE MACHINE DOES NOT RESPOND WHEN THE POWER SWITCH IS TURNED ON:
   - CHECK EACH CONNECTOR CONNECTION
   - REPLACE THE MACHINE SOCKET
   - REPLACE THE SWITCHING REGULATOR
   - REPLACE THE A-BOARD

2. THE SEWING MACHINE LAMP DOES NOT LIGHT UP:
   - REPLACE THE LIGHT BULB
   - REPLACE THE A-BOARD

TO ENTER SELF-DIAGNOSTIC MODE:

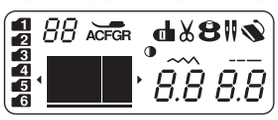
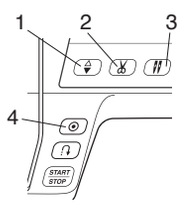
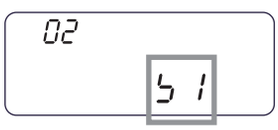
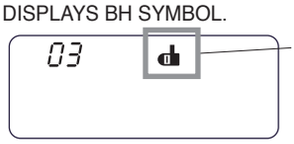
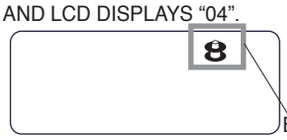


TURN THE POWER SWITCH ON WHILE SIMULTANEOUSLY PRESSING NEEDLE UP/ DOWN BUTTON AND THREAD CUTTER BUTTON.

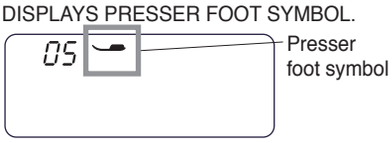
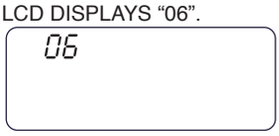
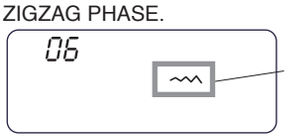
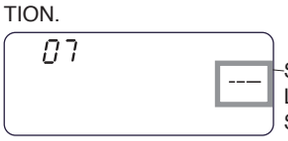


PRESS THE NEEDLE UP/DOWN BUTTON WITHIN THE 1.5 SECONDS TO ENTER THE SELF-DIAGNOSTIC MODE. THE LCD WILL INDICATE "----".

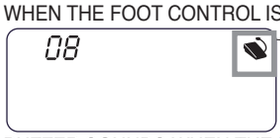
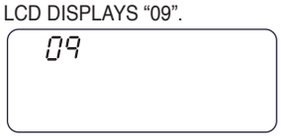
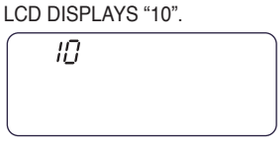
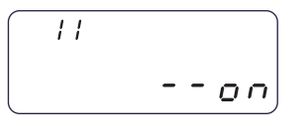
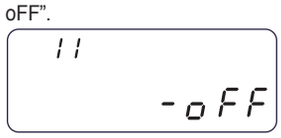
SELF-DIAGNOSTIC TEST

STEP AND ITEMS TO CHECK	PROCEDURE	CORRECT CONDITION	DEFECTIVE CONDITION
01) FUNCTION OF LCD, BUZZER AND LAMP	TURN ON THE POWER SWITCH WHILE SIMULTANEOUSLY PRESSING THE NEEDLE UP/DOWN BUTTON AND THREAD CUTTER BUTTON. PRESS THE NEEDLE UP/DOWN BUTTON WITHIN THE 1.5 SECONDS TO ENTER TNE SELF-DIGNOSTIC MODE. PRESS "1" BUTTON. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	SEWING LAMP AND LCD BACKLIGHT LIT. LCD DISPLAYS "----". BUZZER SOUNDS. LCD DISPLAYS SYMBOLS AND NUMBERS AND BLINKS. 	SEWING LAMP DOES NOT LIT. LCD BACKLIGHT DOES NOT LIT. LCD DOES NOT DISPLAY. BUZZER DOES NOT SOUND. LCD DOES NOT TURNED ON. LCD DOES NOT DISPLAY ANY SYMBOLS OR NOT IN ORDER. **–REMEDY–** REPLACE THE CIRCUIT BOARD A. REPLACE THE MACHINE LAMP. REPLACE THE TOUCH PANEL. REPLACE THE CIRCUIT BOARD F2.
02) BUTTON	 PRESS BUTTONS 1– 4. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS "02". BUZZER SOUNDS WHEN BUTTON IS PRESSED. BUTTON NUMBER IS DISPLAYED WHEN THE BUTTON IS PRESSED.  LCD DISPLAYS "S1" WHEN BUTTON 1 IS PRESSED. LCD DISPLAYS "S2" WHEN BUTTON 2 IS PRESSED. LCD DISPLAYS "S3" WHEN BUTTON 3 IS PRESSED. LCD DISPLAYS "F1" WHEN BUTTON 4 IS PRESSED.	BUZZER DOES NOT SOUND. LCD DOES NOT DISPLAY THE NUMBER CORRECTLY. **–REMEDY–** REPLACE THE CIRCUIT BOARD A. REPLACE THE CIRCUIT BOARD F2.
03) BUTTONHOLE SENSOR	LOWER THE BUTTONHOLE LEVER. MOVE THE BUTTONHOLE LEVER BACK AND FORTH. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS "03". WHEN THE BUTTONHOLE LEVER IS PULLED, BUZZER SOUNDS AND LCD DISPLAYS BH SYMBOL.  WHEN THE BUTTONHOLE LEVER IS PUSHED, BUZZER SOUNDS AND LCD DISPLAYS BH SYMBOL.	BUZZER DOES NOT SOUND. BH SYMBOL DOES NOT APPEAR. **–REMEDY–** ADJUST THE BH LEVER SENSOR POSITION. REPLACE THE BH LEVER SENSOR. REPLACE THE CIRCUIT BOARD A.
04) BOBBIN WINDER SWITCH	MOVE THE BOBBIN WINDER SPINDLE TO THE RIGHT. RETURN IT TO THE LEFT. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS "04". WHEN THE BOBBIN WINDER SPINDLE IS MOVED TO THE RIGHT, BUZZER SOUNDS AND LCD DISPLAYS THE BOBBIN SYMBOL. WHEN THE BOBBIN WINDER SPINDLE IS MOVED TO THE LEFT, BUZZER SOUNDS AND LCD DISPLAYS "04".  	BUZZER DOES NOT SOUND. BOBBIN SYMBOL IS NOT DISPLAYED. **–REMEDY–** ADJUST THE BOBBIN WINDER SWITCH POSITION. REPLACE THE BOBBIN WINDER SWITCH. REPLACE THE CIRCUIT BOARD A.

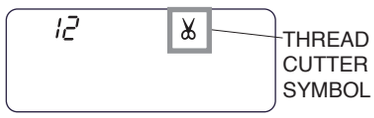
SELF-DIAGNOSTIC TEST

STEP AND ITEMS TO CHECK	PROCEDURE	CORRECT CONDITION	DEFECTIVE CONDITION
05) PRESSER FOOT LIFTER SWITCH	MOVE THE PRESSER FOOT LIFTER UP AND DOWN. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “05”. WHEN THE PRESSER FOOT LIFER IS LOWERED, BUZZER SOUNDS AND LCD DISPLAYS PRESSER FOOT SYMBOL.  WHEN THE BUTTONHOLE LEVER IS RAISED, BUZZER SOUNDS AND THE PRESSER FOOT SYMBOL DISAPPEARS.	BUZZER DOES NOT SOUND. PRESSER FOOT SYMBOL DOES NOT APPEAR. **–REMEDY–** ADJUST THE PRESSER FOOT LIFTER SWITCH POSITION. REPLACE THE PRESSER FOOT LIFTER SWITCH. REPLACE THE CIRCUIT BOARD A.
06) UPPER SHAFT POSITIONING SENSOR	TURN THE HANDWHEEL TOWARD YOU. LOWER THE NEEDLE BAR FROM ITS HIGHEST TO ITS LOWEST POSITION. RAISE THE NEEDLE BAR FROM ITS LOWEST POSITION TO ITS HIGHEST POSITION. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “06”.  TURN THE HANDWHEEL. LCD DISPLAYS STITCH WIDTH SYMBOL WHEN THE NEEDLE BAR IS AT ZIGZAG PHASE.  LCD DISPLAYS STITCH LENGTH SYMBOL WHEN THE NEEDLE BAR IS AT FEED PHASE. 	BUZZER DOES NOT SOUND. STITCH WIDTH OR LENGTH SYMBOL DOES NOT APPEAR. **–REMEDY–** REPLACE THE CIRCUIT BOARD A. REPLACE THE CIRCUIT BOARD P.
07) ZIGZAG MOTOR (STEP MOTOR) AND FEED MOTOR	TURN THE HANDWHEEL TOWARD YOU. LOWER THE NEEDLE BAR ITS HIGHEST TO POSITION (ZIGZAG PHASE) . PRESS THE NEEDLE UP/DOWN BUTTON. RAISE THE NEEDLE BAR FROM ITS LOWEST POSITION TO ITS HIGHEST POSITION (FEED PHASE). PRESS THE NEEDLE UP/DOWN BUTTON. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “07”. PRESS THE NEEDLE UP/DOWN BUTTON WHEN LCD DISPLAYS STITCH WIDTH SYMBOL. THE ZIGZAG MOTOR WILL BE INITIALIZED AND GET ITS DEFAULT POSITION.  PRESS THE NEEDLE UP/DOWN BUTTON WHEN LCD DISPLAYS STITCH LENGTH SYMBOL. THE FEED MOTOR WILL BE INITIALIZED AND GET ITS DEFAULT POSITION.	ZIGZAG MOTOR DOES NOT GET DEFAULT POSITION. BUZZER DOES NOT SOUND. **–REMEDY–** REPLACE THE ZIGZAG MOTOR. REPLACE THE CIRCUIT BOARD A. FEED MOTOR DOES NOT GET DEFAULT POSITION. BUZZER DOES NOT SOUND. **–REMEDY–** REPLACE THE FEED MOTOR. REPLACE THE CIRCUIT BOARD A.

SELF-DIAGNOSTIC TEST

STEP AND ITEMS TO CHECK	PROCEDURE	CORRECT CONDITION	DEFECTIVE CONDITION
08) FOOT CONTROL	ATTACH THE FOOT CONTROL TO THE MACHINE. DEPRESS THE FOOT CONTROL AS FAR AS IT GOES, THEN RELEASE IT. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “08”. THE FOOT CONTROL SYMBOL APPEARS WHEN THE FOOT CONTROL IS ATTACHED.  FOOT CONTROL SYMBOL BUZZER SOUNDS WHEN THE FOOT CONTROL IS DEEPLY DEPRESSED. BUZZER SOUNDS WHEN THE FOOT CONTROL IS RELEASED.	THE FOOT CONTROL SYMBOL DOES NOT APPEAR. BUZZER DOES NOT SOUND. **–REMEDY–** REPLACE THE FOOT CONTROL. REPLACE THE MACHINE SOCKET (FOOT CONTROL SOCKET). REPLACE THE CIRCUIT BOARD A.
09) SLIDE VOLUME	SHIFT THE SLIDE VOLUME FROM LEFT TO RIGHT, THEN RETURN TO THE LEFT. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “09”.  BUZZER SOUNDS AT RIGHTMOST OR LEFTMOST POSITION.	BUZZER DOES NOT SOUND. **–REMEDY–** REPLACE THE CIRCUIT BOARD A.
10) DC MOTOR	PRESS THE NEEDLE UP/DOWN BUTTON. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “10”.  MACHINE RUNS SLOW, THEN FAST, AND THE NEEDLE BAR STOPS AT ITS HIGHEST POSITION.	THE MACHINE MOTOR DOES NOT START. THE MOTOR STOPS IMMEDIATELY. THE MOTOR RUNS UNSTABLE. **–REMEDY–** REPLACE THE DC MOTOR. REPLACE THE CIRCUIT BOARD A.
11) THREAD TENSION RELEASE SOLENOID	LOWER THE PRESSER FOOT. PRESS THE NEEDLE UP/DOWN BUTTON. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “11” AND “–oFF”. PRESS THE NEEDLE UP/DOWN BUTTON TO SWITCH THE SOLENOID ON OR OFF. [ON] BUZZER SOUNDS AND THE THE THREAD TENSION DISK OPENS, AND LCD DISPLAYS “--on” WHILE THE THREAD TENSION DISK OPENS. (THE THREAD TENISON DISK WILL BE CLOSED AUTOMATICALLY 5 SECONDS AFTER THE THREAD TENSION RELEASE.)  [OFF] BUZZER SOUNDS AND THE THREAD TENSION DISK CLOSES, AND LCD DISPLAYS “–oFF”. 	THE THREAD TENSION DISK DOES NOT OPEN. **–REMEDY–** REPLACE THE SOLENOID. REPLACE THE CIRCUIT BOARD A.

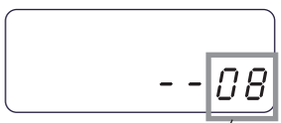
SELF-DIAGNOSTIC TEST

STEP AND ITEMS TO CHECK	PROCEDURE	CORRECT CONDITION	DEFECTIVE CONDITION
12) THREAD CUTTER MOTROR, THREAD CUTTER SOLENOID	TURN THE HANDWHEEL TOWARD YOU TO RAISE THE NEEDLE BAR AT ITS HIGHEST POSITION. PRESS THE NEEDLE UP/DOWN BUTTON. IF THE RESULT IS CORRECT CONDITION, PRESS THE START/STOP BUTTON TO PROCEED THE NEXT STEP. IF THE RESULT IS DEFECTIVE CONDITION, PRESS THE REVERSE STITCH BUTTON TO PROCEED THE NEXT STEP.	LCD DISPLAYS “12”. THE THREAD CUTTER SYMBOL WILL BLINK, AND THREAD CUTTER MOTOR WILL BE INITIALIZED.  	THREAD CUTTER MOTOR DOES NOT WORK. THE THREAD CUTTER SYMBOL DOES NOT APPEAR WHEN THREAD CUTTER IS AT ITS INITIALIZED POSITION. THREAD CUTTER POSITION IS NOT INITIALIZED AND CAUTION BUZZER SOUNDS. **–REMEDY–** REPLACE THE THREAD CUTTER MOTOR. REPLACE THE THREAD CUTTER INITIALIZE SWITCH. REPLACE THE PRINTED CIRCUIT BOARD A.

SELF-DIAGNOSTIC TEST

BUZZER SOUNDS AFTER FEW SECONDS WHEN THE SELF-DIAGNOSTIC TEST HAS BEEN FINISHED. THE TEST RESULT HAS BEEN DETERMINED.

CORRECT:
BUZZER SOUNDS AND LCD DISPLAYS “00”

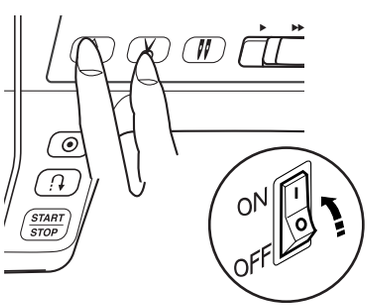


THE DEFECTIVE PART NUMBER.
SEE PAGE 23-25 “STEPS AND ITEMS” SECTION.

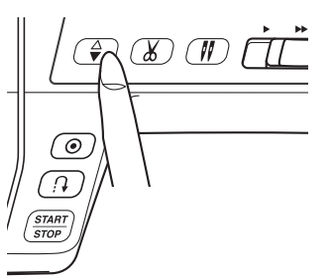
DEFECTIVE:
CAUTION BUZZER SOUNDS AND LCD DISPLAYS THE DEFECTIVE PART NUMBER. REFER TO PAGE 19-21 AND FIX THE DEFECTIVE PART.

TURN THE POWER SWITCH OFF WHEN THE SELF-DIAGNOSTIC TEST IS FINISHED.

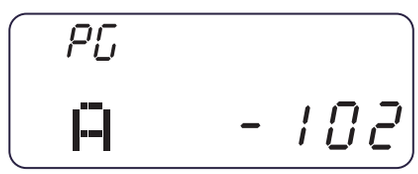
TO DISPLAY THE VERSION OF THE PROGRAM



TURN THE POWER SWITCH ON WHILE SIMULTANEOUSLY PRESSING NEEDLE UP/ DOWN BUTTON AND THREAD CUTTER BUTTON.



PRESS THE NEEDLE UP/DOWN BUTTON WITHIN THE 1.5 SECONDS TO ENTER THE SELF-DIAGNOSTIC MODE.
THE LCD WILL INDICATE "----".



PRESS THE TOUCH PANEL “ 3” TO DISPLAY THE VERSION OF THE PROGRAM.

REPLACING THE ELECTRONIC COMPONENTS

CIRCUIT BOARD-A (1)

TO REMOVE:

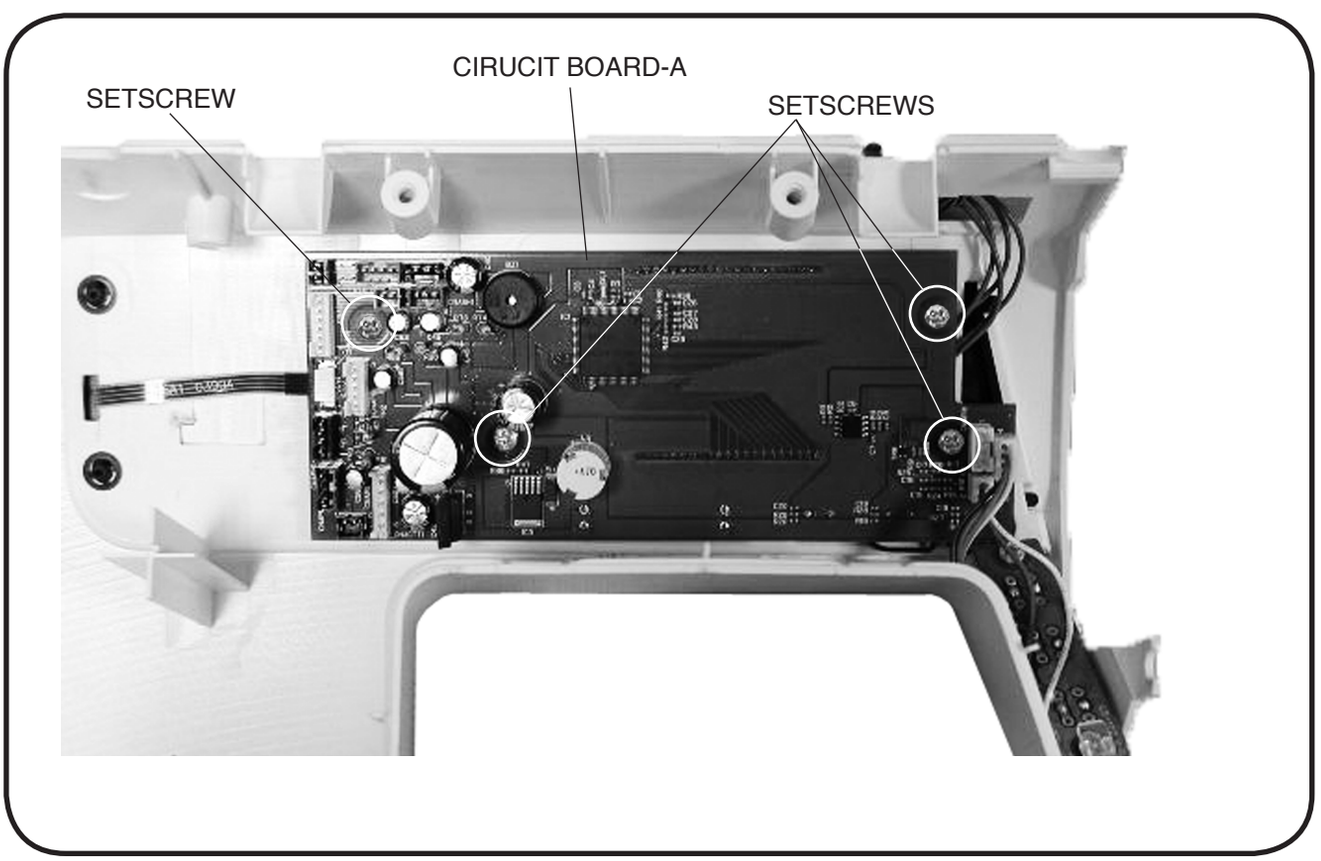
1. REMOVE THE FRONT COVER. (SEE PAGES 6 – 7)
2. PULL OUT CONNECTORS FROM THE CIRCUIT BOARD-A.
3. REMOVE THE SCREWS (4PCS.) AND THE CIRCUIT BOARD-A.

TO ATTACH:

1. FOLLOW THE ABOVE PROCEDURES IN REVERSE.

NOTE:

DO NOT DISCONNECT THE CONNECTORS BY PULLING ON CORD.
TO DISCONNECT, GRASP THE CONNECTOR, NOT THE CORD.



REPLACING THE ELECTRONIC COMPONENTS

DRIVING MOTOR

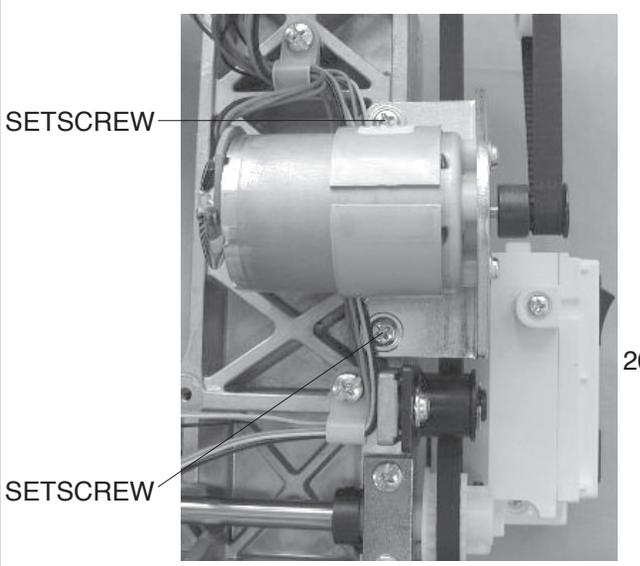
TO REMOVE:

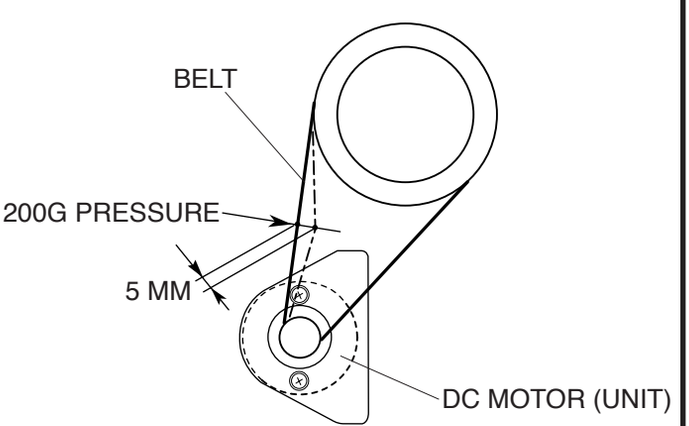
1. REMOVE THE FRONT COVER.
2. REMOVE THE SETSCREWS (2PCS.) AND THE DRIVING MOTOR AND THE BELT.

TO ATTACH:

1. INSTALL THE DRIVING MOTOR AND THE MOTOR BELT. TIGHTEN THEM WITH SETSCREWS (2PCS.) LIGHTLY.
2. MOVE THE MOTOR UP OR DOWN TO ADJUST THE MOTOR BELT TENSION.
   THE BELT SHOULD DEFLECT 5 MM WHEN APPLYING 200 GRAMS OF LOAD TO THE MIDDLE OF THE BELT.
   TIGHTEN THE SETSCREWS (2PCS.) FIRMLY.

3. ATTACH THE REAR COVER AND THE FRONT COVER.





REPLACING THE ELECTRONIC COMPONENTS

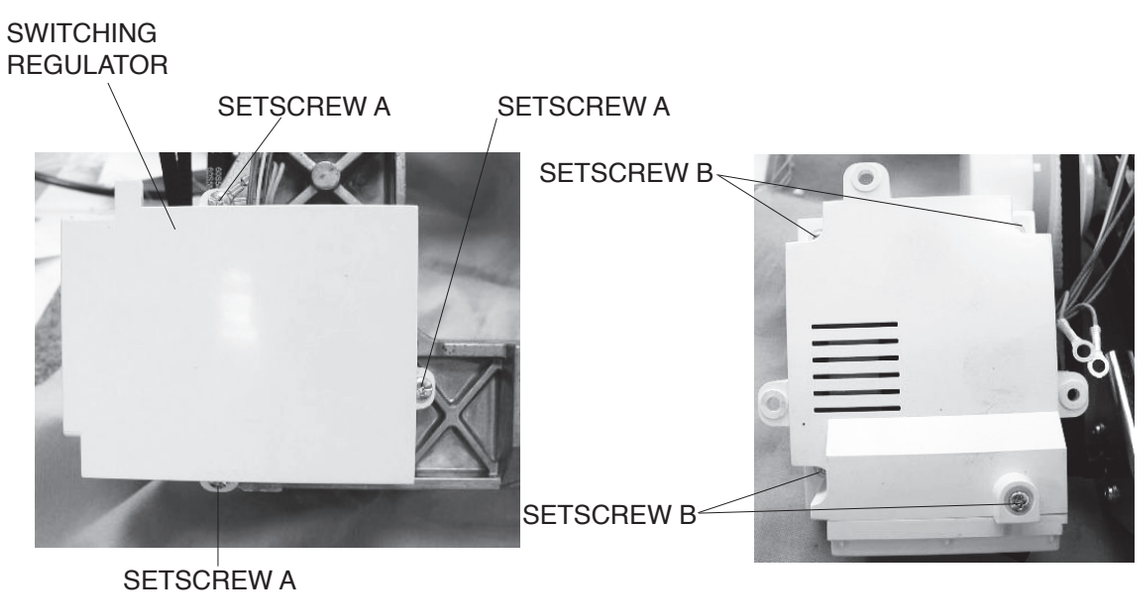
SWITCHING REGULATOR UNIT

TO REMOVE:

1. REMOVE THE FRONT COVER AND THE REAR COVER.
2. REMOVE THE SETSCREWS A (3 PCS.) AND THE SWITCHING REGULATOR.
3. REMOVE THE SETSCREWS B (4 PCS.).

TO ATTACH:

4. FOLLOW THE ABOVE PROCEDURES IN REVERSE.



MECHANICAL ADJUSTMENT

ADJUSTING BUTTONHOLE LEVER POSITION

TO ADJUST THE BUTTONHOLE LEVER GUIDE:

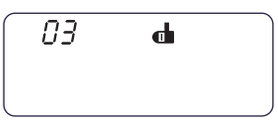
1. ENTER THE DIAGNOSTIC TEST OF BUTTONHOLE SENSOR MODE. (SEE PAGE 18 AND 19. THE LCD SHOULD DISPLAY 03 AND BH SYMBOL.)
2. REMOVE THE FACE COVER (SEE PAGE 4) AND LOOSEN THE SETSCREW ①.
3. MOVE THE BUTTONHOLE LEVER GUIDE SO THE BH SYMBOL DISAPPEAR WHEN THE BUTTON HOLE LEVER ④ IS LOWERED.
   TIGHTEN THE SETSCREW.

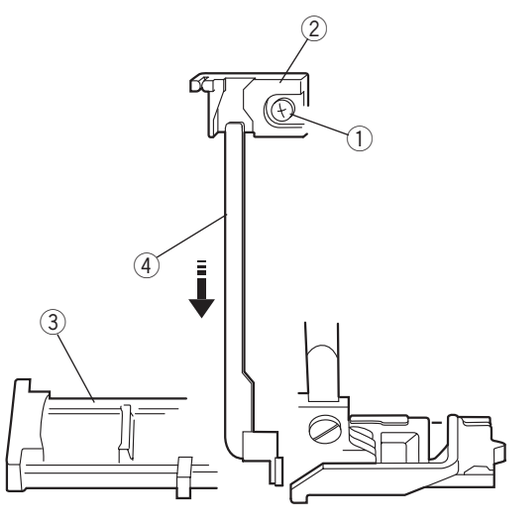
TO ADJUST THE BUTTONHOLE SENSOR POSITION.

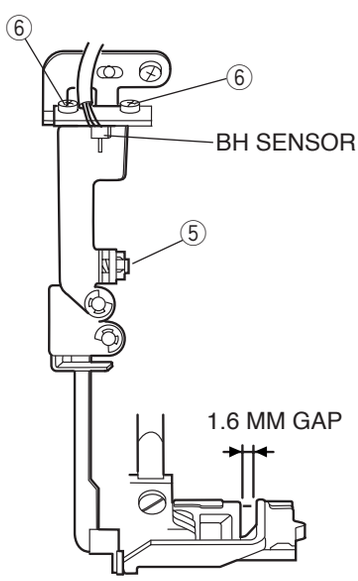
4. ATTACH THE BUTTOHOLE FOOT (R) ③.
5. LOWER THE BUTTONHOLE LEVER ④ TO ITS LOWEST POSITION AND OPEN A 1.6 MM GAP BETWEEN THE SLIDER AND THE BUTTONHOLE FOOT.
6. TURN THE ADJUSTING SCREW ⑤ TO THE LEFT UNTIL THE LCD DISPLAY BH SYMBOL.
7. NEXT, TURN THE ADJUSTING SCREW TO THE RIGHT UNTIL THE BH SYMBOL DISAPPEARS.
8. TURN OFF THE POWER SWITCH.
9. ATTACH THE FACE COVER.

NOTE: IF THERE IS ANY LINT OR DUST IN THE BUTTONHOLE SENSOR SLIT, LOOSEN THE 2 SCREWS ⑥ AND CLEAN IT OUT WITH A SWAB.

TO ENTER ADJUSTING MODE



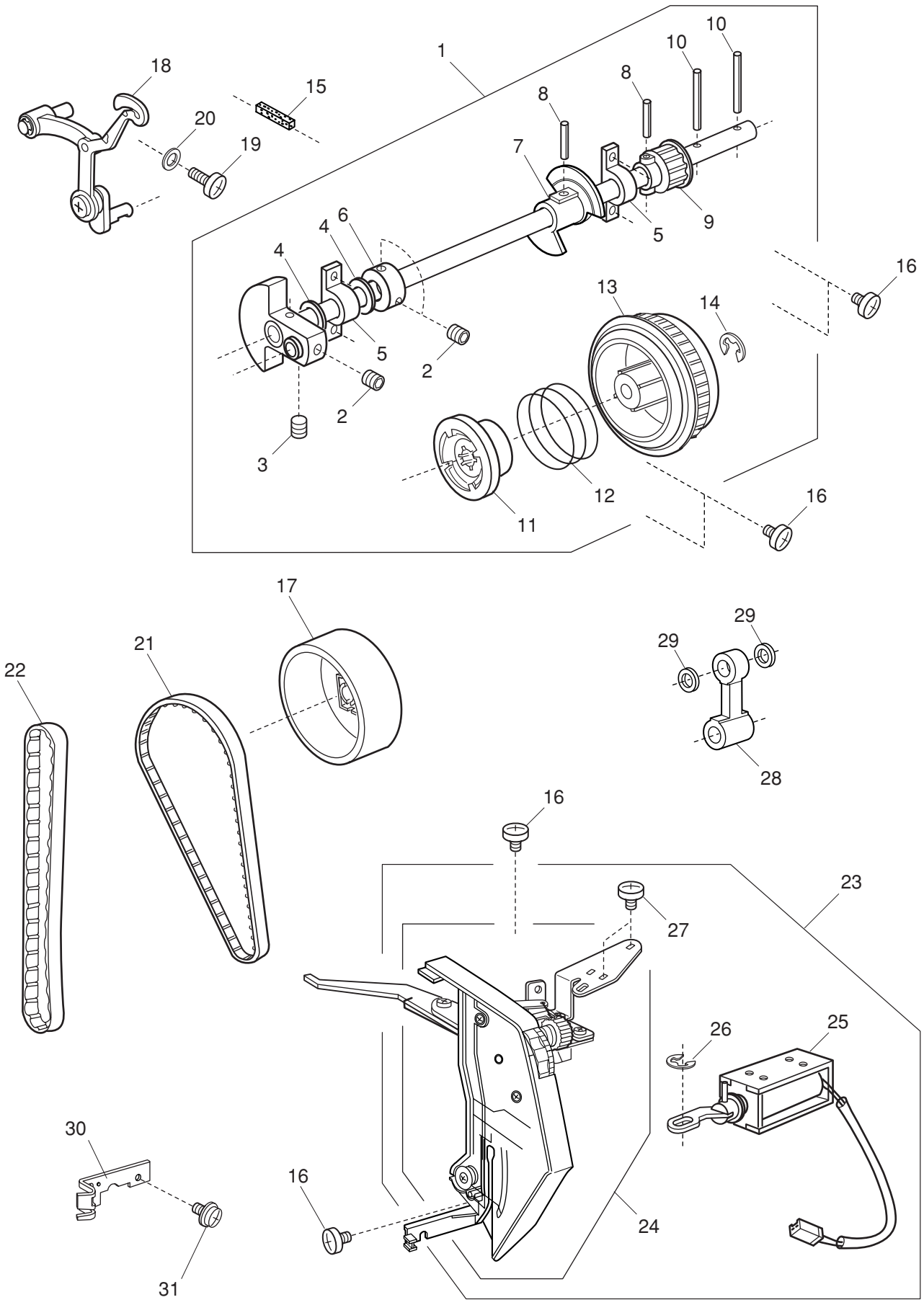




PARTS LIST

MODEL : 4120QDC

PARTS LIST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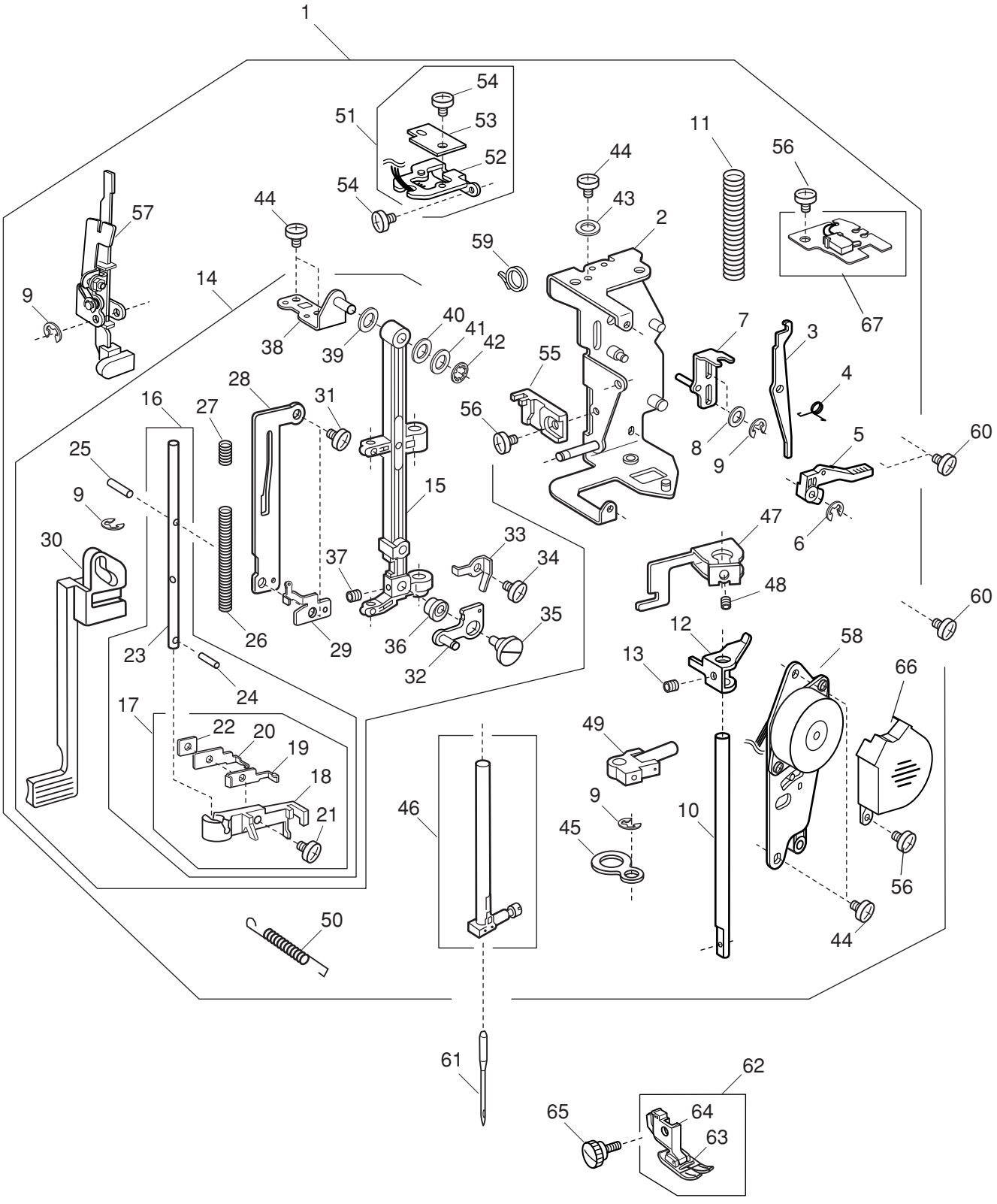
PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	808601005	Upper shaft (unit)
2	000111201	Hexagonal socket screw 4x4
3	000112800	Hexagonal socket screw 4x6
4	000036201	Washer FT80
5	508054008	Shaft fixing metal
6	820166001	Lower shaft ring
7	808003001	Upper shaft shielding plate
8	000004200	Spring pin 3x18
9	508021006	Upper shaft gear
10	000024206	Spring pin 3x30
11	502064003	Clutch ring
12	661024007	Clutch spring
13	508055009	Belt wheel
14	000002806	Snap ring E-6
15	731312005	Felt
16	000081005	Setscrew 4x8
17	508056000	Handwheel
18	508634101	Thread take-up lever (unit)
19	000103509	Setscrew 4x10
20	000072302	Washer 4
21	808021005	Timing belt
22	808037004	Belt
23	808616106	Thread tension (unit)
24	808501004	Thread tension (unit)
25	808604008	Solenoid (unit)
26	000002105	Snap ring E-3
27	000101105	Setscrew 3x4
28	808005003	Needle bar crank rod
29	000036005	Washer FT60
30	809023000	Face plate spring supporter
31	000114709	Setscrew TP 3x6

PARTS LIST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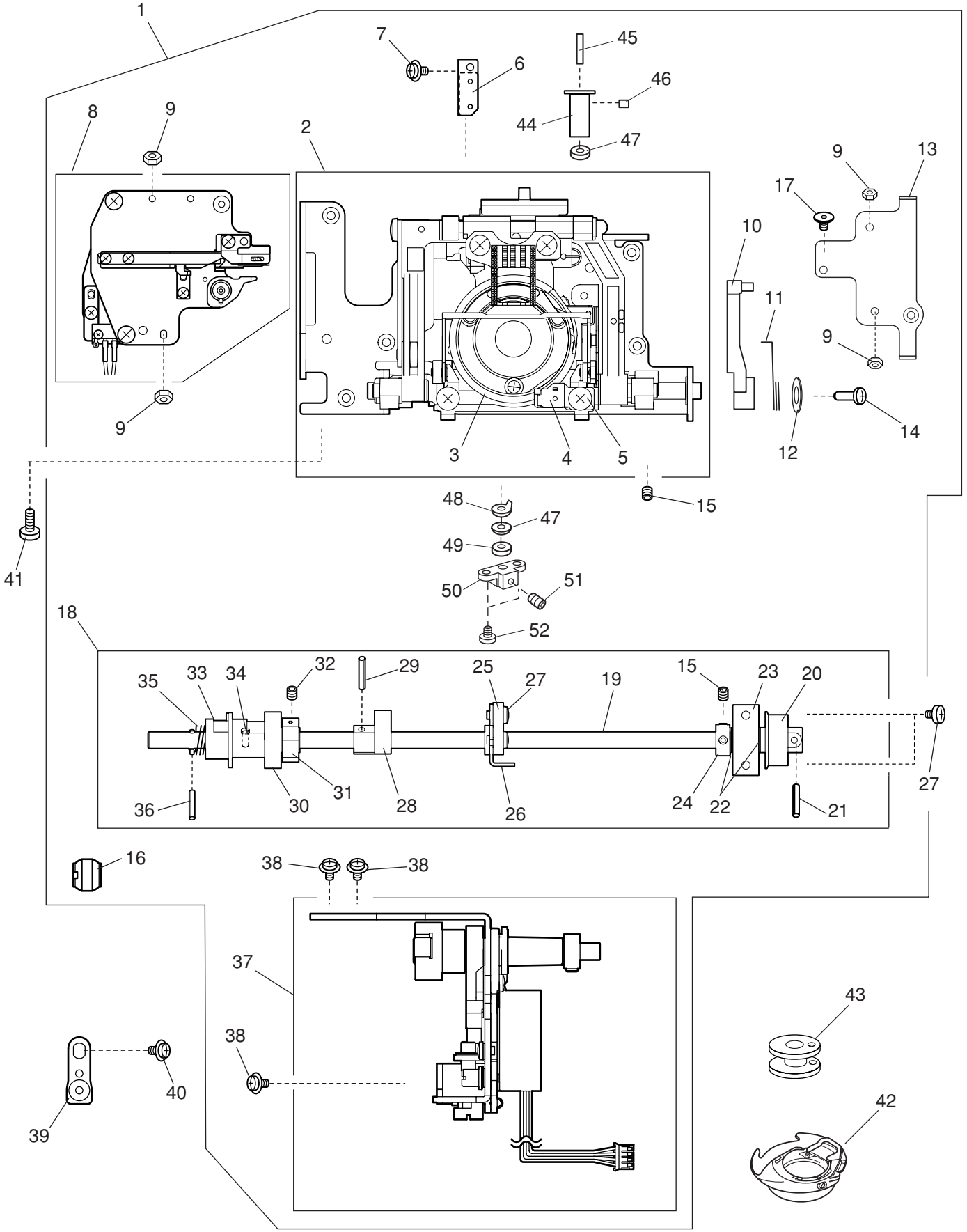
PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	808640202	Presser bar base plate (unit)
2	808006107	Presser bar base plate
3	808007005	Thread tension release lever
4	503041007	Thread tension release spring
5	502024001	Presser foot lifter
6	000001609	Snap ring E-5
7	808076005	Presser bar spring adjusting plate
8	000072508	Washer 4
9	000002105	Snap ring E-3
10	508002104	Presser bar
11	808081003	Presser bar spring
12	508039007	Presser bar supporter
13	000111500	Hexagonal socket screw 4x8
14	808603007	Needle bar supporter (unit)
15	808008006	Needle bar supporter
16	842637006	Threader shaft (unit)
17	842638007	Threader plate (unit)
18	755064106	Threader guard plate
19	842088006	Thread retention plate
20	844095002	Threader plate
21	755096004	Setscrew
22	755095003	Nut
23	840036025	Threader shaft
24	000003508	Spring pin 2x8
25	000125105	Guide pin E-2x16-CH
26	842090001	Threader shaft spring
27	842096007	Threader lever spring
28	842091002	Threader guide plate
29	844036027	Threader lever plate
30	842092003	Threader lever
31	000078319	Setscrew 3x6
32	808015006	Zigzag width rod
33	827088009	Zigzag width rod spring
34	820373003	Setscrew 2x3
35	678084007	Eccentric pin
36	808074003	Washer
37	000111902	Hexagonal socket screw 3x4
38	808009007	Supporter adjusting plate
39	000036500	Washer FT60
40	673022002	Spring washer
41	000070609	Washer 6
42	000013903	Snap ring CS-5
43	000072003	Washer 5
44	000101404	Setscrew 4x6
45	808010001	Supporter guide plate
46	508607105	Needle bar (unit)
47	808011002	Threader position set plate
48	000177205	Hexagonal socket screw 3x6
49	508509003	Needle bar connecting stud (unit)
50	844038018	Needle bar supporter spring
51	808606103	Buttonhole sensor (unit)
52	845002005	Sensor set plate
53	843502602	Printed circuit board E1 (unit)
54	000101105	Setscrew 3x4
55	830057021	Buttonhole lever guide
56	000103808	Setscrew 3x5
57	843625004	Buttonhole lever (unit)
58	808605102	Zigzag width motor (unit)
59	000053008	Cord binder
60	000081005	Setscrew 4x8
61	102408089	Needle HA1-14
62	660509008	Presser foot (unit)
63	832523007	Zigzag foot
64	660806008	Presser foot holder
65	647112009	Setscrew
66	809019003	Motor cover
67	808611008	Presser foot lift switch (unit)

PARTS LIST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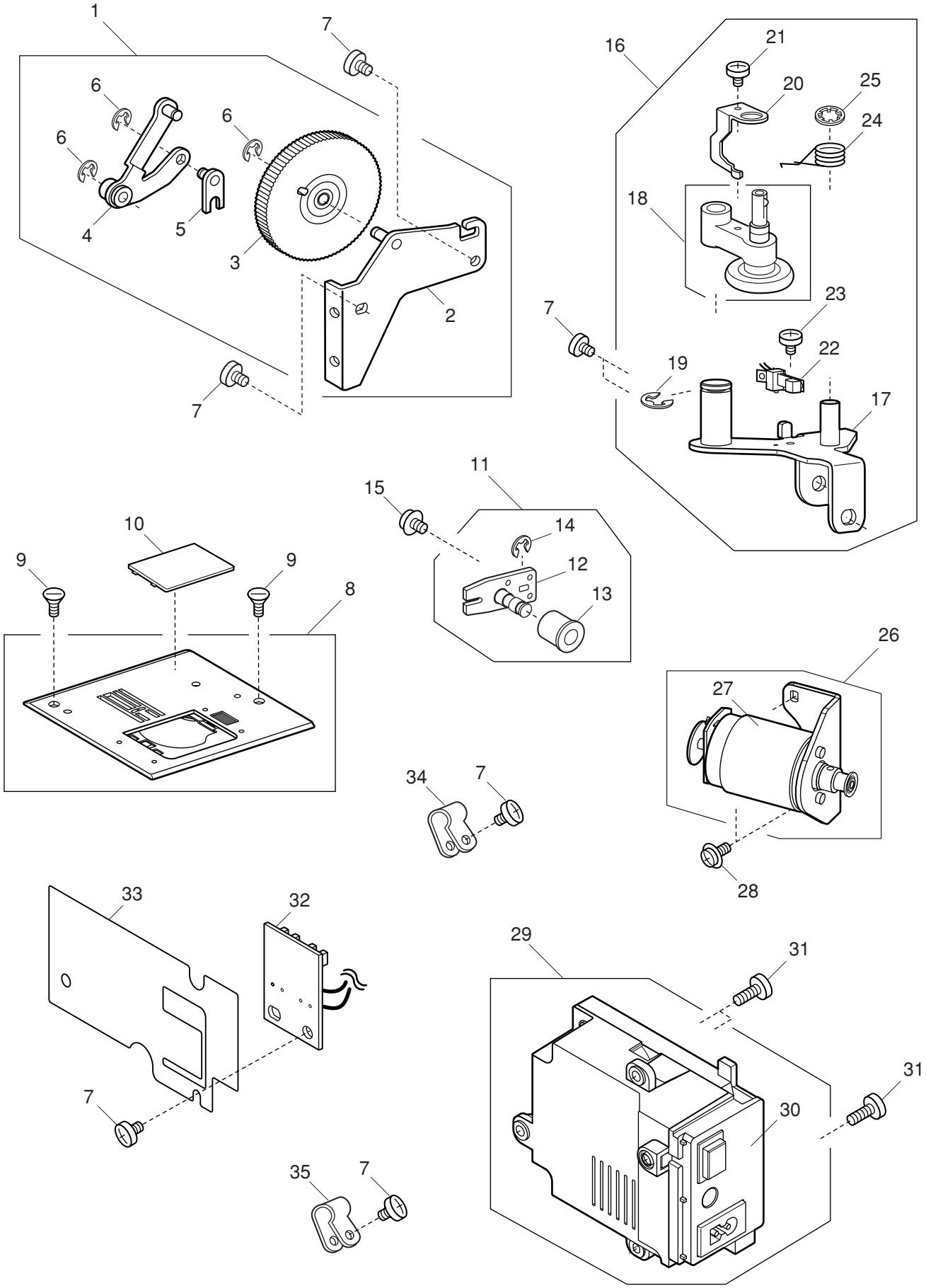
PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	809603000	Hook race (whole unit)
2	809601008	Hook race (unit)
3	650623008	Hook body (unit)
4	846632003	Bobbin holder stopper (unit)
5	000164405	Setscrew 4x16
6	825515004	Feed base plate (unit)
7	825237009	Setscrew
8	808610100	Thread cutter (unit)
9	000063104	Nut 3-2-5.5
10	809013007	Feed fork
11	809015009	Feed fork spring
12	000071105	Washer
13	809021008	Needle plate set plate (right)
14	820172000	Pin
15	000111201	Hexagonal socket screw 4x4
16	732034003	Lower shaft bushing
17	000193104	Thin-head setscrew TP 3x4
18	809602009	Lower shaft (unit)
19	808027207	Lower shaft
20	508021006	Upper shaft gear
21	000004200	Spring pin 3x18
22	000038502	Washer
23	508054008	Shaft fixing metal
24	820166001	Lower shaft ring
25	809017001	Lower shaft supporter
26	809016000	Lower shaft supporter plate
27	000081005	Setscrew 4x8
28	809014008	Feed cam
29	000005407	Spring pin 3x12
30	808110002	Lower gear
31	508020005	Ring
32	000111108	Hexagonal socket screw 4x6
33	846103000	Feed lifting cam
34	820161006	Feed lifting pin
35	808075004	Feed lifting cam spring
36	000022802	Spring pin 2x12
37	809607004	Feed motor (unit)
38	000115205	Setscrew TP 4x6
39	809042005	Lower shaft bushing set plate
40	000115607	Setscrew TP 4x8
41	000101703	Setscrew 4x12
42	846652009	Bobbin holder (unit)
43	102261103	Bobbin
44	820123006	Hook race shaft
45	820124007	Hook shaft oil wick (1)
46	820125008	Hook shaft oil wick (2)
47	000038409	Washer
48	627192001	Washer
49	625102008	Washer
50	508072002	Hook race shaft base
51	000111304	Hexagonal socket screw 5x5
52	000103705	Setscrew 4x5

PARTS LIST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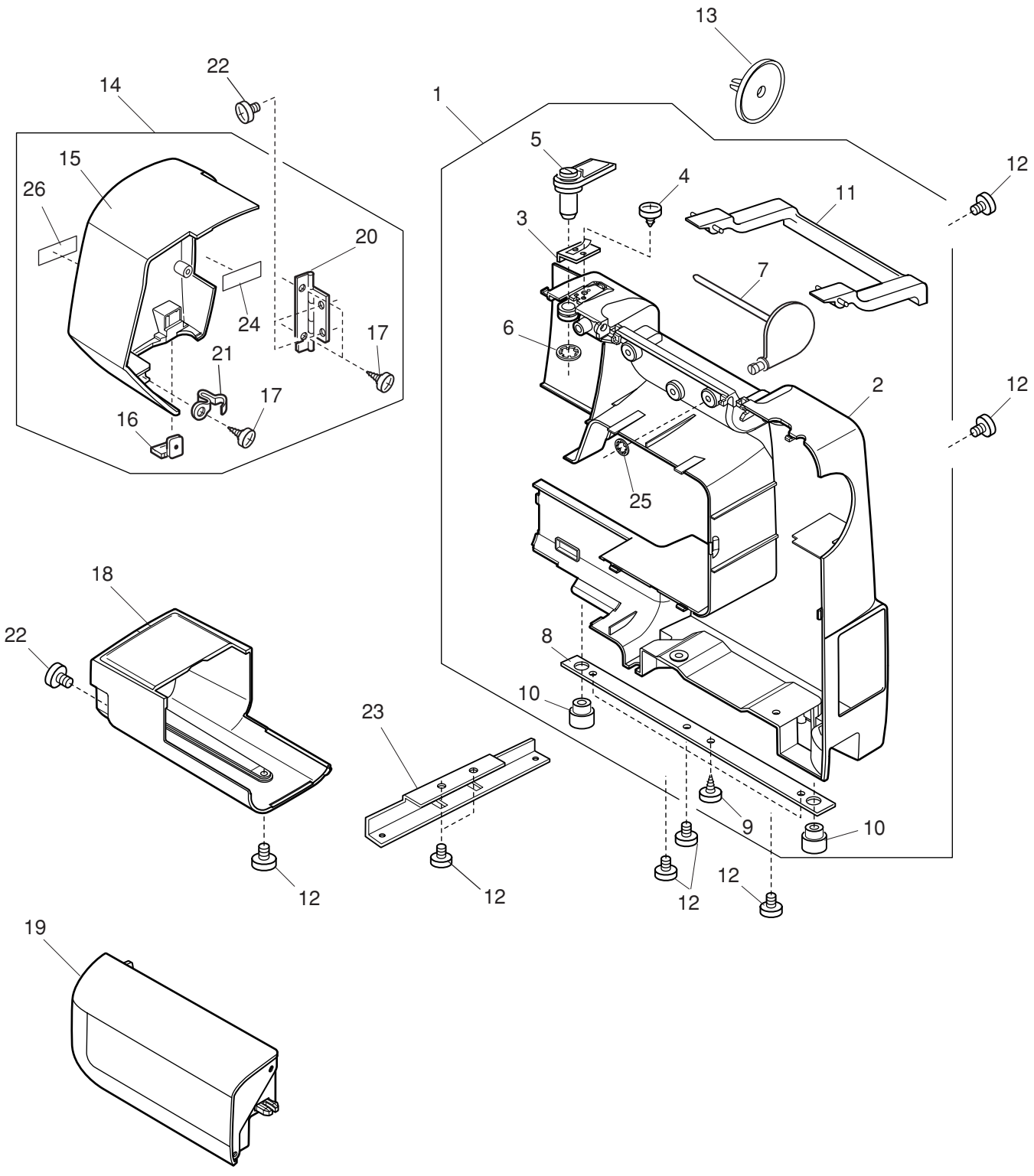
PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	809608005	Presser foot pressure adjustment (unit)
2	809018002	Presser foot pressure adjusting set plate
3	808078203	Presser foot pressure dial
4	808079008	Adjusting arm 1
5	808080002	Adjusting arm 2
6	000002105	Snap ring E-3
7	000081005	Setscrew 4x8
8	860544300	Needle plate (unit)
9	681009101	Setscrew
10	846271103	Hook cover plate
11	808614001	Idler (unit)
12	808038005	Idler set plate
13	625217100	Idler
14	000002806	Snap ring E-6
15	000115607	Setscrew TP 4x8
16	808615002	Bobbin winder (unit)
17	808039006	Bobbin winder set plate
18	508507001	Bobbin winder arm (unit)
19	000001609	Snap ring E-5
20	508111004	Clutch lever
21	000120203	Setscrew 3x8 (B)
22	856512100	Switch (unit)
23	000081706	Setscrew 2.5x5
24	808040000	Spring
25	000013903	Snap ring CS-5
26	808617004	DC motor (unit)
27	808502005	DC motor (unit)
28	000115700	Setscrew TP 4x10
29	808639301	Switching regulator (unit) (U.S.A.)
	808639208	Switching regulator (unit) (Australia) (Continental Europe)
30	808525303	Switching regulator (unit) (U.S.A.)
	808525200	Switching regulator (unit) (Australia) (Continental Europe)
31	000103509	Setscrew 4x10
32	808504007	Printed circuit board P (unit)
33	808093008	Cord guide
34	000188209	Nylon clip ACC-1.5
35	000188405	Nylon clip ACC-2

PARTS LIST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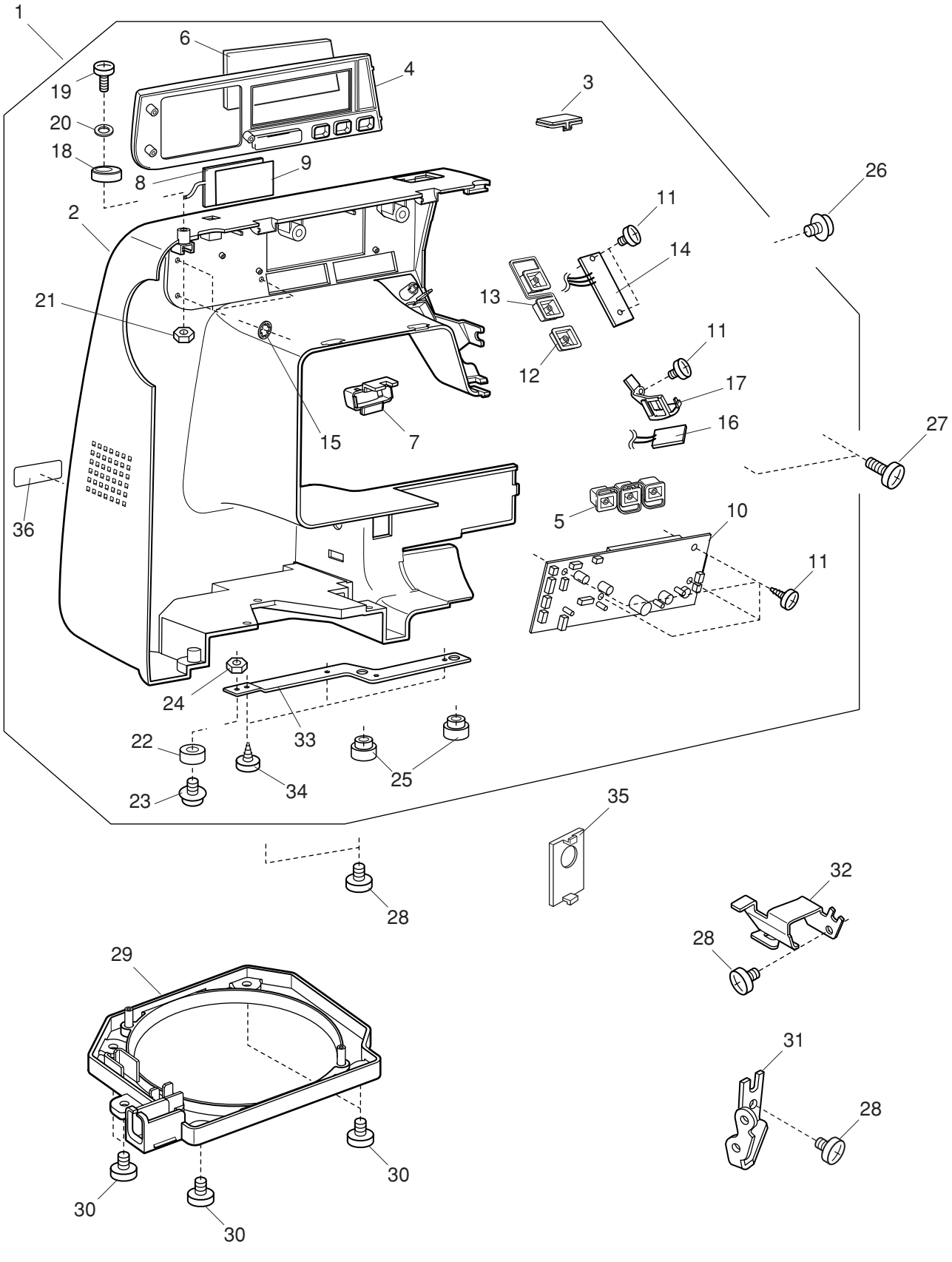
PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	809604104	Rear cover (unit)
2	809025105	Rear cover
3	827503108	Top cover thread guide (unit)
4	000162001	Setscrew 2.6x5
5	650503403	Thread guide (unit)
6	000014409	Snap ring CS-8
7	809027004	Spool pin
8	809028005	Arm leg rear
9	000198604	Setscrew 4x14 (B)
10	735003002	Bed rubber cushion
11	809026003	Carrying handle
12	000081005	Setscrew 4x8
13	822020503	Spool holder
14	809606106	Face plate (unit) (U.S.A.)
	809606302	Face plate (unit) (Australia) (Continental Europe)
	809606209	Face plate (unit) (Canada)
15	809040209	Face plate
16	840602006	Thread cutter (unit)
17	000161206	Setscrew 3x10 (B)
18	808061007	Free arm cover
19	808508001	Extension table (unit)
20	851503103	Face plate hinge (unit)
21	731067002	Face plate spring
22	000081119	Setscrew 4x6
23	809024001	Arm sole set plate
24	830312016	Sticker (U.S.A.)
25	000013800	Snap ring CS-6
26	100517008	Sticker (Canada)

PARTS LIST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PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	809605105	Front cover (unit)
2	809030206	Front cover
3	808103002	Front cover lid
4	809031218	Panel 1
5	809033117	Button 1
6	809032208	Panel 2
7	809036202	Slide volume
8	809501007	Touch panel (unit)
9	809043109	Touch Panel seat
10	809503102	Printed circuit board A (unit)
11	000120203	Setscrew 3x8 (B)
12	809035119	Start/stop button
13	809034118	Button 2
14	809502008	Printed circuit board F (unit)
15	000140007	Snap ring CS-4
16	858511105	Printed circuit board L (unit)
17	808118000	Lamp holder 2
18	735016307	Bobbin winder stopper
19	000101828	Setscrew 4x16
20	000071013	Washer
21	000061205	Nut 4-3-7
22	639005003	Rubber foot
23	000114802	Setscrew TP 4x12
24	000160102	Adjustable lock nut 4
25	735003002	Bed rubber cushion
26	000115205	Setscrew TP 4x6
27	000160401	Setscrew 4x16 (B)
28	000081005	Setscrew 4x8
29	808059105	Bed cover
30	000149312	Setscrew 3x8
31	639080002	Front cover set plate
32	808016007	Arm thread guide
33	809038008	Arm sole front
34	000198604	Setscrew 4x14 (B)
35	809039009	Cap
36	809045008	Emblem

PARTS LIST

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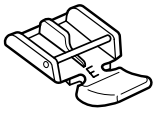
3 

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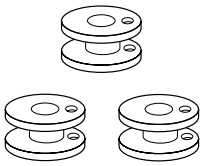
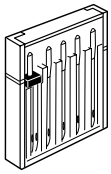
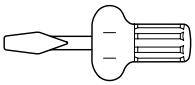
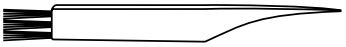
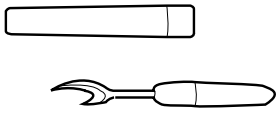
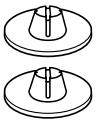
6 

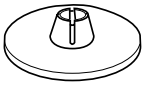
7 

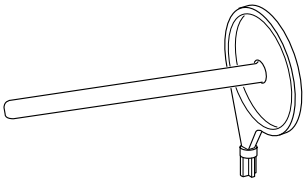
8 

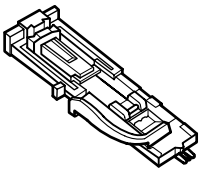
9 

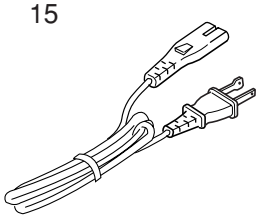
10 

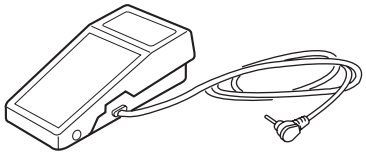
11 

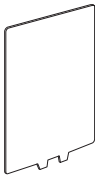
12 

13 

14 

15 

16 

17 

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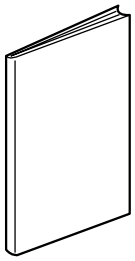
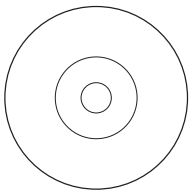
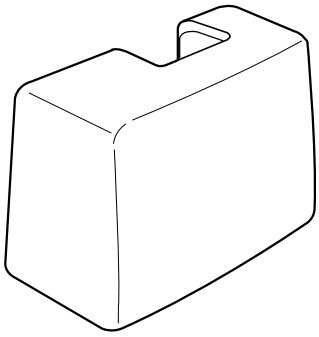
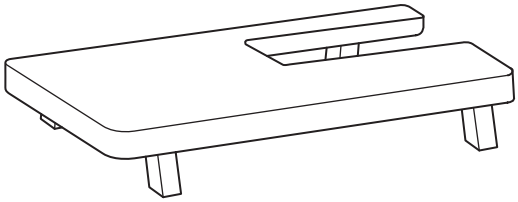
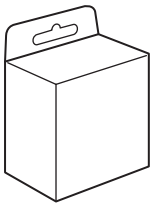
19 

20 

21 

22 

23 

PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	809870103	Standard accessories (unit)
	809870309	Standard accessories (unit) (Canada)
2	822804118	Satin foot (F)
3	829801002	Zipper foot (E)
4	825817009	Blind hem foot (G)
5	822801001	Overedge foot (C)
6	102261103	Bobbin
7	820827007	Assorted needle set
8	820832005	Screwdriver
9	802424004	Lint brush
10	647808009	Seam ripper (Buttonhole opener)
11	822019509	Spool holder (small)
12	822020503	Spool holder
13	809041004	Spool pin
14	753801004	Buttonhole foot (R)
15	856519004	Power supply cord (U.S.A.) (Canada)
	830314018	Power supply cord (Australia)
	830335004	Power supply cord (Continental Europe)
16	C-1036	Foot control
17	809801206	Stitch chart
18	809809008	Stitch chart base
19	809800102	Instruction book (English)
	809800113	Instruction book (French)
	809800249	Instruction book (Dutch)
	809800180	Instruction book (German)
	809800179	Instruction book (Spanish)
	809800191	Instruction book (Swedish)
	809800205	Instruction book (Norwegian)
	809800216	Instruction book (Danish)
20	809808007	Instructional DVD
21	404701002	Hard cover
22	808401003	Large extension table
23	200100007	Quilting Attachment (unit) (Canada)